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ILLUSTRATIONS

OF

British Birds,

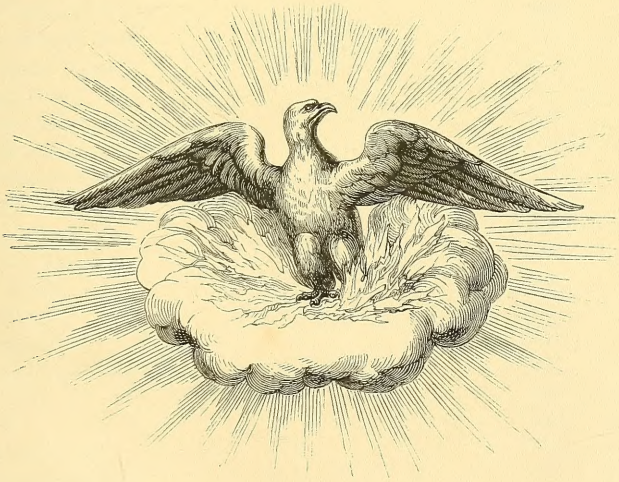
AND THEIR

Eggs.

BY H. L. MEŸER.

VOL. VI.

CONTAINING SIXTY PLATES.



LONDON:
SIMPKIN, MARSHALL, & Co.
1849.

LONDON:
Printed by S. & J. Bentley and Henry Fley,
Bangor House, Shoe Lane.

G74
M612
1842
v. 6, c. 1
SCNHRB

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ILLUSTRATIONS

OF

BRITISH BIRDS.

GRALLATORES. *CHARADRIIDÆ.*

PLATE CCXXVI.

THICK-KNEE.

ŒDICNEMUS CREPITANS.

The Thick-knee, as a summer visitant in Great Britain, is not uncommon, but in consequence of its nocturnal habits is not much seen by the common observer. Besides the name above given it, this species is also known by the appellation of the Stone Curlew, and Norfolk Plover, the first of which has reference to the barren and stony localities it frequents; and the latter it has obtained on account of the frequency of its appearance in that county, a circumstance easily accounted for, Norfolk and Suffolk being the most likely of all our eastern counties to invite its stay during its periodical migrations, on account of the nature of the soil. In parts of Surrey these birds are not uncommon; we have seen a

pair of them very frequently in a fallow field on the estate of the Hon. Locke King, in that county, beside which a public footpath runs from Chertsey Mead to the bridge over the Wey.

The geographical distribution of this bird extends over all the temperate countries of Europe, and over many parts of Asia and Africa; such as the East Indies, Arabia, Syria, Persia, and the southern parts of Siberia; as well as over Abyssinia, Nubia, and Egypt. The countries in Europe in which the Thick-knee chiefly abounds, are Turkey, Greece, Italy, the islands of the Mediterranean, Spain, and the south of France. In Switzerland and Holland it is not common.

The period of the arrival of this species with us is the latter end of March, and the beginning of April, and that of its departure the middle of August and September; it consequently only seems to sojourn here during the breeding season. The migratory journeys of this Plover are performed during the night, in families numbering from four to six or seven in autumn, at which time the young are returning southward with their parents; but they are only seen singly, or at most in pairs in the spring. In the south of Europe many remain throughout the year.

The localities most frequented by the Thick-knee are of an open character, such as uncultivated wastes, fallow land, heathy ground, intermixed with barren patches of sand or gravel; also sheep-walks that, on account of their unproductive nature, are not of common resort; and, above all, the spots most unfrequented by man; but, under all circumstances, flat ground it must be, as this bird never frequents hilly districts.

Although this species resorts to some open river, lake, or pond every evening to satisfy its thirst, and its propensity

for bathing, it seldom approaches the water during the day. Wooded localities it also avoids, unless young plantations of Scotch fir can be so called, as it seems very partial to ranging among them, if the surface of the ground is dry and sandy, and abounds with the cones of that kind of fir, which, as they lie on the ground, harbour many insects suitable to this species. Its great fear of the approach of man keeps the Thick-knee in the midst of the before-named open and barren localities; in such places it also roosts during the day, either standing on one leg, with its head buried up to the eyes in its back feathers, or squatting close to the ground. During the whole night the Thick-knee is lively and busy in pursuit of its food.

The general appearance of the Thick-knee is peculiar, and cannot be mistaken, in consequence of its thick head, long legs, and dull-coloured plumage; it goes about on the ground with stiff legs, proceeding at short intervals rather leisurely; but when endangered by the approach of an intruder, it runs incredibly fast, and to the greatest distance that the ground allows, before it takes wing; its flight is not quick in the day, but rather heavily pursued, flying with arched wings, low over the ground; at night it flies generally with more ease and buoyancy, and much higher, particularly during the migratory time of the year.

The Thick-knee is not only shy in common with most other birds, but is so in the greatest degree, as it avoids not only sportsmen, but shepherds and ploughmen, cattle and carriages; and the colouring of its plumage being quite in harmony with sandy ground, and the short and dry vegetation on it, contributes very considerably to its safety, of which the young birds seem by instinct to be well aware, as they frequently lie down close to the ground, on the approach of danger.

The sociability of the Thick-knee with its own species is

also very slight, the small parties that travel together being only made up of the individuals of a family ; and as soon as the young birds can shift for themselves, they leave the parents altogether. In autumn and winter, consequently, the Thick-knee ranges about in a lonely manner.

Towards the pairing season the males enter the lists for the possession of a mate, and the victor approaches his bride with his head much lowered, his wings drooping, and his tail erect, and fanned out, uttering at the same time, his cooing love-notes, *dit*, or *dillit*, *dillit !* The usual call-note of this species sounds like *krælect*, or *krææt*, which it utters chiefly during the evening and night, when on the wing, but rarely in the day.

In confinement, the Thick-knee can easily be tamed, and shews great partiality towards its keeper, and in consequence of its hardy nature, it lives to a great age ; but as it has no remunerating qualities, it is not often kept by others than lovers of ornithology.

Its food in a natural state is chiefly worms, insects and their larvæ, in search of which it visits the neighbouring meadows and pasture lands, where small snails and slugs also become its prey. During the day, the Thick-knee is obliged to search for worms under small lumps of peat-earth, and beneath stones ; thus the ornithologist is frequently made acquainted with the vicinity of one or more of these birds, by the number of small stones that may be found turned over, and by the spot where the stone has laid being disturbed.

The breeding arrangements of the species seem to be carried on in the most independent, careless manner possible, the female only scratching the sandy, dry ground of the spot chosen, and depositing her two or three eggs on it, without the least lining of any description ; the eggs are consequently

open to the eyes of all birds of prey, and vermin of all kinds. The female sits from sixteen to seventeen days on the eggs, being sometimes assisted by the male bird in this office. The young remain one day in the nest, under the care of the mother, and leave it for ever on the second day; it is also remarkable that in a nest of three eggs rarely more than two birds are hatched. Before the young can provide for themselves the parents take great care of them, and have been observed on the approach of danger, to lead them among standing corn, or potatos, and as soon as they were in safety the parents have been seen to fly off to a distance, in order to distract the attention of the pursuer.

The entire length of this species is seventeen inches; the wing measures nearly ten inches; the beak one inch eight lines in length, of which the basal half is wine-yellow, and the tip black; the tarsus measures three inches five lines; the middle toe one inch and a half; the colouring of the legs and feet wine-yellow; the iris orange-yellow.

The top of the head and nape are wood-brown, with dusky streaks; a dark line encircles the eyes, and another originates at the base of the lower mandible, and encircles the ear-coverts; the cheeks, chin, and throat, white; all the upper parts are wood-brown, each feather bordered with straw-yellow, having a dusky streak along the shafts. A light coloured band runs across the smaller feathers on the wing, about half an inch in width, which appears among the darker feathers as if the colour has been washed out with a brush, and is of a very extraordinary character and appearance; the under parts are straw-coloured, marked with dusky streaks; under tail-coverts rufous; the outer tail-feathers white at the base, and black at the tips; quills brownish black. The young are more dusky in colouring.

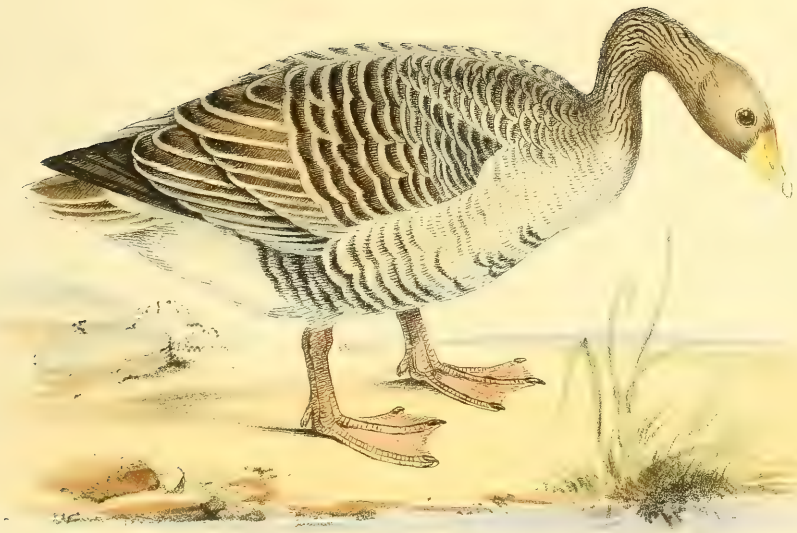
The egg figured 226 is that of the Thick-knee.

PLATE CCXXVII.

GREY LAG WILD GOOSE.

ANSER PALUSTRIS.

The Grey Lag Wild Goose is at present only a winter visitant in Great Britain, its occurrence being more rare than formerly, in consequence of the increase of cultivation and population. According to former ornithologists it not only visited us periodically, but was even numerous in the fenny districts of Lincolnshire and the neighbouring counties, and some pairs remained annually to breed. This species is distributed over Europe, Asia, and Africa, but does not seem to extend further north than the sixty-third degree of north latitude. In Europe it is generally distributed over the central and eastern countries, such as the coast of Norway, parts of Sweden, the more temperate provinces of Russia, and the borders of the Baltic. In Pomerania it is rather more plentiful; and occurs in many parts of Prussia, Poland, Silesia, and Saxony. In Holland, France, and Switzerland, it is rarely met with. In Asia it visits the temperate parts of Siberia during the summer months, and during the winter the southern shores of the Caspian Sea, Persia, and the Dead Sea. In Africa it only visits the north and north-western parts.



The localities chosen by the present species are, the vicinity of some inland sea or lake, the borders of large ponds, and also, during cold weather, the sea-shore where the ground is covered partly with sedges and rushes of the thickest nature and greatest extent; but it remains yet to be ascertained in what countries the Grey Lag Wild Geese chiefly abound in the winter months; unless their numbers are small, or that they are generally dispersed over most temperate countries; or that they retire to unfrequented barren commons during the day-time.

The general appearance of the present species on the ground is more gainly and slender than that of our domesticated goose, of which it is supposed to be the origin, and it exceeds it greatly in the ease with which it walks about, as regards both its appearance and capacity; on the wing it is strong, but heavy, although it moves on at a considerable rate in proportion to its bulk. When the bird flies to a short distance only, it does not mount above thirty or forty yards from the ground; but when migrating or leaving the neighbourhood, it flies at a great height; and when in companies, they proceed in the manner well known to all observers, being headed by one individual, and forming the letter V. It is remarkable that when a pair of wild geese, during the breeding-season, fly to or from their feeding-ground, the female generally flies before the male, as if the gander wished to shew his good breeding in giving the preference to the fair sex.

By nature the present species is very shy, and can only be approached by a sportsman by stealth, whereas either a shepherd, ploughman, woman, or child, is very little heeded.

This bird appears sociable among its own species, as a solitary bird is hardly ever met with; but it does not easily mix in company with other geese, and least of all with the

Bean Goose. It has been recorded that a male of the Grey Lag Wild Goose has paired with a tame goose in a farm-yard, but of the other sex such a circumstance has not been noticed.

The call-note of the present species is so exactly the same as that of the tame goose, that the most practised ear is unable to distinguish the one from the other; it is uttered very frequently, but particularly while the bird is on the wing, or on meeting with a straggler.

In the spring of the year the young male birds fight very valiantly for the possession of a mate, and two young males will frequently take hold of each other by the neck and beat with their wings until one is exhausted and obliged to yield; during this time the females stand round about, keeping up a continuous cackling, either to accompany the fight, or to induce the combatants to desist.

When the birds have paired, they reside in swamps, on rivers, lakes, ponds, &c., and now and then near the sea-shore; preferring the most unfrequented swamps and fens where large pieces of water are perfectly surrounded by rushes and flags, particularly where forest-trees intersect the spots; or extensive swamps that border on meadows, pastures, and young corn-fields; to such spots they return year after year to breed; but in almost every country in Europe the numbers of the Grey Lag Wild Goose are becoming visibly lessened, and the spots formerly occupied by them are now found frequently deserted. The present species arrive early in March in the neighbourhood of their breeding localities, and then the adult birds appear each with its mate: they pair for life, and seem to be much attached to each other.

The nest of the Grey Lag Wild Goose is generally placed under cover of some decayed rushes, or sheltered by willow or

osier stumps, and consists of a great quantity of dry stalks, rushes, leaves, and divers decayed vegetable remains of the former year, which are piled one upon another, care being taken that the larger are laid down first as a foundation; the whole fabric is from two to three feet in diameter, and about one foot high; the eggs vary from five to twelve or fourteen in number, according to the age of the bird, the younger ones not laying more than half the latter number. While the female sits on the eggs the male constantly watches for her safety, and very rarely deserts his post. The female is very careful in covering over the eggs, with some of the surrounding material, whenever she leaves the nest for a short time; and it may serve as a sure guide to persons who go in search of the eggs, that if they are uncovered they are forsaken, and are, consequently, not worth leaving in the nest. As soon as the Goose has laid her full number of eggs, she plucks the down off her breast and belly, and disposes it in such a manner among the eggs, that they retain an equal temperature even at the changes of the weather, or during the short periods when she leaves the nest, once or twice a day.

In four weeks the young come forth, which, after remaining under the mother the entire first day, are subsequently led to the water and made to swim to some small islet, where they can hide, and feed on blades of young corn, grass, or duckweed. The gander redoubles his watchfulness on the increase of his family, and hardly ever leaves the party. On the approach of danger, the parents resort immediately to the shelter of rushes, standing corn, or long grass, attended by the whole brood, but when surprised on open ground too far from shelter, the young lay themselves flat on the ground in some rut or hollow, and have even been known to be taken up in the hand and carried away; but if they are near enough to

the water, instinct teaches them to resort to that element for protection, where by diving or swimming to the shelter of some cover, they may elude observation ; on such occasions the parents fly round the intruders, uttering their inharmonious cries.

The varieties that occur among the Grey Lag Wild Goose are pied, but never entirely white ; domestication is supposed to have produced the pure white specimens seen among our tame species.

The food of this Goose consists in the seeds of all kinds of grain, and in vegetable matter, such as young wheat, turnips, carrots, grasses, clover, &c., and many wild plants that are sweet and tender. Barley and oats are its most favourite food, but it never consumes insects of any kind.

We observed above, that in Holland this species is rare ; in consequence of which, it numbers among delicate presents that are sent to Dutch merchants by their Prussian and Pomeranian correspondents, at certain seasons of the year ; and we remember to have observed that they were always in fine condition, being, in fact, almost too fat to be enjoyed.

The adult male of the Grey Lag Wild Goose measures nearly three feet in length ; the wing from the carpus to the tip seventeen inches and a half; the beak three inches ; the tarsus three inches seven lines.

The colouring of the plumage is as follows: the head, nape, back part of the neck, and upper parts of the back brownish ash-colour, the latter transversely barred ; the back, scapulars, greater and lesser wing-coverts, are brownish ash-colour bordered with white ; the smaller wing-feathers, the entire edge of the wing and the base of the quill-feathers are whitish ash-colour ; the rump is ash-coloured ; the vent and under tail-covers, white ; the beak is pale orange

flesh-colour, as well as the eyelids; the nail on the beak white horn-colour; iris deep brown; legs and feet pale flesh-red.

The female is always smaller than the male, and her plumage less marked.

The egg figured 227 is that of the Grey Lag Wild Goose.

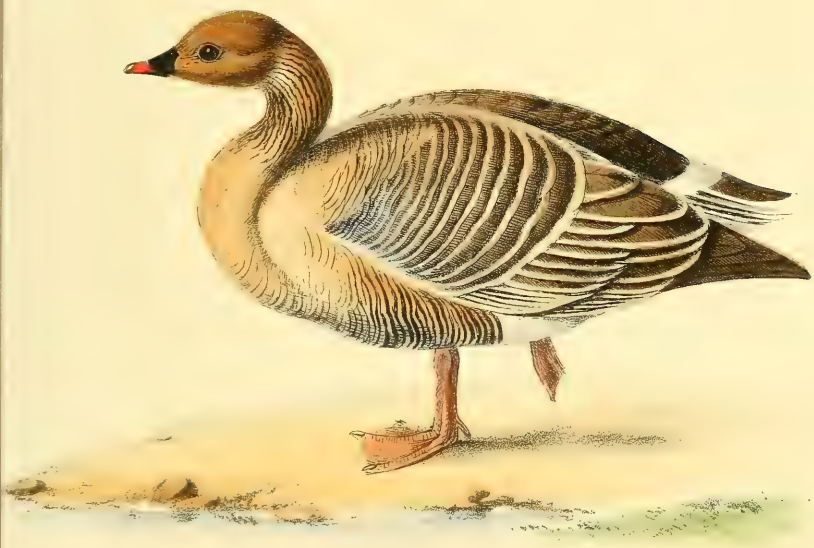
PLATE CCXXVIII.

PINK-LEGGED BEAN GOOSE.

ANSER SEGETUM.

In June 1840 we gave a representation of this species in our quarto work on British Birds, drawn on the 29th of May of that year, from a specimen then living in the Zoological Gardens, Regents Park, where it was kept with some individuals of the orange-legged species, and of which it was supposed to be only an accidental variety. Subsequent research, however, convinced us that the points of difference between this and the more common orange-legged bird, were too great to belong only to a variety, and at last we ascertained that this species had long since obtained a separate place in the ornithological lists of our continental neighbours, and that the species had been duly acknowledged as distinct. How this species remained so long confused with its congeners in this country is remarkable, since it has not only been met with in many parts of England in winter, but is known to breed in great numbers among the Western Islands of Scotland.

Although first recognised as a distinct species abroad, it appears that the Pink-legged Goose is chiefly known as a winter visitant in the civilised parts of the continent of Europe. According to M. Temminck, it was first observed



in Holland, in the winters of 1829 and 1830, and subsequently in 1838; at all which times they appeared in very small numbers, travelling apart from other species.

M. de Lamotte d'Abbeville has kept for some years in his farm-yard, according to the statement of M. Temminck, three individuals of this species, in company with the grey lag goose, the orange-legged bean goose, and the white-fronted goose, but they shew no disposition to associate with any of their neighbours, forming always a separate group. The same isolated habits have been observed in the individuals of this species that have been kept in the Zoological Gardens, and in St. James's Park. Although seldom making its appearance in this part of Britain in a wild state, this species seems well known among the Scottish islands, being found at all times of the year in numbers, as before mentioned, among the Hebrides.

In the small islands in the Sound of Harris, according to Mr. J. Macgillivray, these birds breed annually in great numbers. They appear in pairs about the middle of May, and at the end of July the young are fully fledged and strong on the wing. By the beginning of August they collect again in flocks, amounting, according to that gentleman, to several hundreds, and remain, doubtless, in flocks until the spring again calls them to participate in the separate duties of the season.

The egg of this species is considerably less in bulk than that of the grey lag goose, or the orange-legged bean goose, especially in its transverse measurement; it differs also much in colour, being white without any tinge of yellow.

From various continental authors, who appear well acquainted with this species, we gather that the Pink-legged Geese reside during the summer months in the northern and north-eastern parts of Europe and Asia, as well as in

North America. In the autumn, namely, in September and October, they migrate southward, in order to pass the winter in milder climates. The countries visited at that season are France, Italy, Hungary, and Turkey; during long and cold winters it even crosses the Mediterranean to the northern provinces of Africa.

The localities most frequented by these geese on their first arrival, in the month of September, are the stubble of oats, and also fields of young wheat; among these they pass their time, visiting occasionally a pond or lake, for the purpose of drinking. They are also extremely fond of pease, beans, etc., but their partiality for oats is so predominant that, in localities where this grain is cultivated triennially, these birds abound every third year, but the two intervening seasons they do not make their appearance.

Towards the spring these Geese become restless, flying to meadows, waste lands and heathy commons, and finally leave their winter quarters for more northern regions. Their migratory journeys are performed usually in the day, and the speed at which they sometimes fly has been noticed to amount to forty or fifty miles an hour. The numbers that journey together vary from five to fifty or sixty; and when in large flocks they form a triangular figure, headed by the father of the foremost family.

During the day these Geese frequent cultivated districts of divers descriptions, but resort at night invariably to open flats, or the border of a lake or river, where they stand either on the ground, or with their feet in the water. The flock roost together in one party, and their acute sense of hearing prevents the probability of their being surprised. The only manner, therefore, in which a specimen can be obtained, is by lying in wait for them early in

the morning, provided the direction in which their feeding ground lies has been ascertained, and thus intercepting them on their return to it.

The countries at present ascertained to be the breeding-places of this Goose are, besides the Hebrides before mentioned, Finland, Norway, Sweden, the northern provinces of Russia, and the borders of the Baltic. In the central parts of Europe it appears far less common than the foregoing species.

The food of this bird needs no further description, except to observe, that the oats, barley, wheat, buckwheat, etc., which constitute its favourite food, are attacked in all stages, from the time of their appearance above ground until they are finally ripe and dry. But late in the spring, when, after the disappearance of snow, grain and seeds are becoming scarce, these Geese resort to swamps and bogs in order to feed on the young shoots of rushes and flags, and even draw up the very roots of these aquatic plants, biting their fleshy but strong stems with their sharp-edged beaks.

The appearance of this bird when on the ground is in several respects different from the orange-legged species; in size it is considerably less; the neck is shorter, the wings more pointed, and extending much beyond the tip of the tail, the beak is much smaller as well as differently marked, and the legs and feet differ so materially that they cannot be mistaken.

The adult male of the Pink Legged Bean Goose is twenty-eight inches in length; the wings extend when closed an inch and a half beyond the tip of the tail, and measure above seventeen inches from the carpus to the tip; the beak is an inch and three quarters long, and eleven lines high at the base.

The colouring of the plumage of the adult is as follows:

its head and neck are rufous-brown ; the upper part of the breast is reddish fawn-colour ; the entire mantle ash-colour, and each of the feathers of that part tipped with soiled white ; the legs and feet are flesh-colour, tinged with vermilion ; the lower part of the back greyish black, the upper tail-coverts white ; the feathers of the tail are grey, bordered and tipped with white ; primary quill-feathers ash-colour, the shafts white ; the secondary and tertials are dusky-grey, edged with white ; the sides and flanks barred with brown and greyish-white ; the rest of the under parts pure white. The beak has the basal half and nail bluish black, the intervening space vermilion ; iris dusky.

The egg figured 228 is that of the Pink Legged Bean Goose.

226

227.

228.

PLATE CCXXIX.

ORANGE-LEGGED BEAN GOOSE.

ANSER FERUS.

The Orange-legged Bean Goose is a winter visitant in Great Britain, and the most plentiful of all its family. We may add, that when sportsmen announce the arrival of wild geese in the fall of the year, it is most probably the present species that is spoken of. The countries where these birds remain to breed are not known precisely, but may be inferred from the climate the Orange-legged Bean Goose prefers and the direction in which it travels. It is, however, ascertained with certainty that this species resides in the northern parts of Europe and Asia during our summer months, but whether it also inhabits the northern parts of America has yet to be proved.

Low and moist swamps, intersected by ditches, and the borders of inland seas, rivers, lakes, and ponds, are the favourite haunts of the present species, besides stubble and cornfields. During the day they frequent the fieds in great flocks, where they meet with their favourite food, and change from one to another, according to circumstances. Towards the latter part of the day they draw nearer to the moister spots, in order to approach the extensive flats, where they roost during the night.

This species never roosts among long herbage, or bushes, or in the immediate neighbourhood of trees, but invariably in entirely open ground, and very frequently on barren islands in the mouths of rivers; this fact induces us to presume that the same sort of localities are resorted to for the purpose of breeding. It is not from fear that this bird avoids trees, as it has been shot more than once in the autumn by sportsmen, who were in pursuit of other game, while flying low enough over a forest to be within gun-shot.

Great numbers of this species frequent the north-west coast of Norway, in the autumn, which proves that they must breed further north, from whence they arrive on their way to their winter-quarters.

The Orange-legged Bean Goose may very easily be distinguished from the former species, when seen on the ground, by its slender form, smaller head, and lengthened neck; and, when flying, the tips of the wings are broader and not so long. The common observer may, perhaps, not pay sufficient attention to these particulars, but an ornithologist and practised sportsman detects them very easily.

When migrating, the present species flies in a double line, with a single bird for a leader, and at a great elevation, but at other times rather near the ground, particularly in windy and foggy weather.

By nature these birds are shy, avoid as much as possible the approach of men, and are at all times very watchful: they are, however, sociable among their own species, and fond of their society, and appear always ready to unite themselves to a flock of their own kindred whenever an opportunity occurs. They are very seldom observed to join a party of other geese of any description; the only instance of this kind we are aware of is recorded of a party of young, of a late brood, which, however, kept together in the rear

of the alien flock, as if they only took advantage of the current of air, in order to facilitate their progress.

The sounds uttered by the Orange-legged Bean Goose differ so little from those of the foregoing species, that it requires great experience to distinguish between them.

When the present species is caught and pinioned, it soon becomes tame; this is not only the case with young birds, but also with birds at an adult, and even old age, that have been slightly wounded and disabled from making their escape. The fact that this species soon associates with our tame geese in the farmyard, feeds in company with them, and roosts at night in the barn or other place provided for that purpose, is very well established; and in this it equally differs from the pink-legged and the grey lag wild goose, as neither of these can be brought to do so. This goose attains a great age, both in a state of nature, and in confinement or forced domestication.

The food of the bird here described consists of ripe and unripe grain, grasses, clover, cabbage-leaves, turnips and aquatic plants, of which it consumes not only the leaves, but also the roots, and it seems not to be important whether these grow in sweet or brackish water. Of grain, they prefer oats and the young shoots of corn, or rye, in the search of which they go miles distant; this is done during the whole day, retiring in the evening to their watery haunts, for the purpose of drinking and roosting, the latter of which they very rarely do in the fields.

When the snow covers the ground this species resorts to localities where certain spots have remained uncovered, and where a scanty meal may yet be found: and in the spring of the year, until their departure, the new seed on the ground, and the roots of aquatic herbage and sedges make up a sufficiency that supplies their wants; this accounts in some

measure for their roving about at that time, over a wider surface of ground than at any other period.

In confinement, the present species feeds on the same food as our domesticated goose, and thrives upon it.

The arrival of the Orange-legged Bean Goose is by far later in central Europe than that of the pink-footed, and its departure in the spring earlier, which induces us reasonably to think that it breeds farther north than that species, but, as before mentioned, we cannot speak with certainty, although divers statements are made of its breeding in the lakes of Cumberland and Westmorland, Scotland, and the western isles of the Hebrides; also on the coast of Norway, in Iceland, and even in Sweden and Denmark. In confinement it has been known to intermix with our tame goose, and to produce a mixed breed, resembling the tame mother in most respects, and the father in the dark-coloured nail on the tip of the upper mandible.

The Orange-legged Bean Goose measures thirty-six inches in length; the beak two inches and a half from the forehead to the tip; the wing, from the carpus to the tip, nineteen inches and a half; the tarsus three inches and a half; the tail consists of sixteen feathers; the wings, when closed, do not extend beyond the tip of the tail.

The head, and upper part of the neck are greyish brown, the lower part of the neck, and the under parts are pale ash colour; the upper part of the back, scapulars, and all the wing-coverts are brownish ash, bordered with white; the rump is brownish black; vent and under tail-coverts, pure white; the beak is black at the nail and base, and orange in the middle; eyes deep brown; eyelids dark grey; the legs and feet are orange.

The female is smaller, and the young have a paler ash-coloured plumage, and two or three white spots near the beak.

The egg figured 229 is that of the Orange-legged Bean Goose.

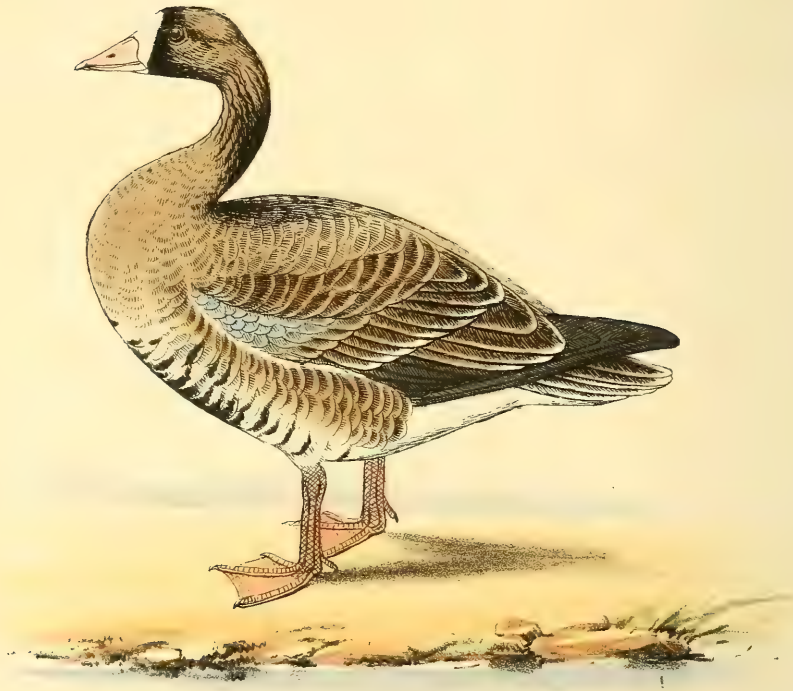


PLATE CCXXX.

WHITE-FRONTED GOOSE.

ANSER ALBIFRONS.

The White-fronted Goose is, like the rest of its family, a winter visitant in Great Britain, by no means uncommon, but still not so numerous as some others, its numbers depending in a great measure upon the state of the winter.

We shot one of these birds in the month of February, 1847, on the Thames, after having observed it for several days on a gravelly and broken bank of the river, that had remained free from snow, on account of its sheltered situation, while the entire neighbourhood was snow-clad; this bird was one of a flock that had been observed to fly once or twice over the fields; it did not seem to be shy, as we met with it several times flying over our heads within twenty yards, and also standing about on Chertsey Mead, and in a cropped osier-bed; this bird could not have been left behind by its flock on account of any infirmity, as it proved perfectly sound, with the exception of the wing, that we broke in firing at it, and it was besides in the best possible condition, and very excellent when roasted; we

only had occasion to regret that we could not meet with many of its companions.

The geographical distribution of the White-fronted Goose is of very considerable extent; it visits us, as before mentioned, almost every winter; it ranges in Europe from the most northern parts to France and Italy, during its different migratory journeys, and in Holland is very plentiful; it is also common in Asia and North America. In Lapland it is found in great flocks; in Greenland, Norway, Denmark, Sweden, Prussia, and Poland, it is common, but the main body of the species appears to be partial to the sea-coast, and the countries that are bordered by it; it ranges generally about five or six miles inland, preferring salt to fresh water. The mouths of rivers and inlets by the sea-side it frequents constantly, and although stubble fields and arable lands are frequented by the White-fronted Goose, it does not exclusively pass its time there, but resorts daily to moist meadows, marshes, and the sea-coast; in this respect it stands in the list most properly between the Geese that pass their time inland, and those that exclusively inhabit the sea-coast.

The White-fronted Goose is a handsome bird, in consequence of its white forehead, bordered by deep black, its rosy-coloured beak, and the black markings on its white breast; it walks about with ease and grace; its flight is strong, and performed in a straight line, in the same manner as some others of its family, namely, one after the other, thus forming a connected link, although they keep no order in this respect when they only move about in pursuit of their daily food.

This species is rather sociable, congregating even with other kinds, as well on the ground as on the wing; they, however, do not intermix with them, but only fly about

close to them when in small parties; and on the sea-coast they also congregate in this manner with the Bernicle Goose.

The call-note of the White-fronted Goose sounds very different from either of the before-described species; it may be described in the words *click*, *clack*, or *cling!* and when a flock are in an excited or angry mood, the concert is exceedingly amusing; and in consequence this species has obtained also the appellation of the Laughing Goose.

The food on which the White-fronted Goose subsists is not only corn and green vegetable matter, but also marine plants and insects, the remains of which are found in its stomach, namely, beetles, and other insects, their larvæ, and small pebbles; the specimen we obtained, as before noticed, had most probably gone in search of insects in the gravelly spots where we observed it: several times this goose was put up near Chertsey in the very same spot, on which it flew to a similar place near Walton Bridge, and returned again and again to the former.

The breeding localities of the present species are in the higher northern regions, namely, the islands of the Arctic Ocean, but we are unable to state the number of eggs, and what the materials are that form the nest.

Twenty-seven inches is the entire measurement of the White-fronted Goose; the beak, which is flesh-red, with the nail white, measures two inches; the legs are orange, the webs flesh-red, and the claws whitish horn colour; the tarsus measures three inches; the eye is dusky; the wing, from the carpus to the tip, sixteen inches in length. The forehead and chin are white, encircled by a narrow black band, which divides them from the brownish ash-colour of the head and neck; the lower part of the neck is ash-coloured white, with several black bars in uncon-

nected patches on the breast and belly; the back, scapulars, wing-coverts, and flanks gull-coloured brown, all of which are bordered with reddish-brown; quills black.

The female has the white on the forehead smaller.

The egg figured 230 is that of the White-fronted Goose.

229.

230.

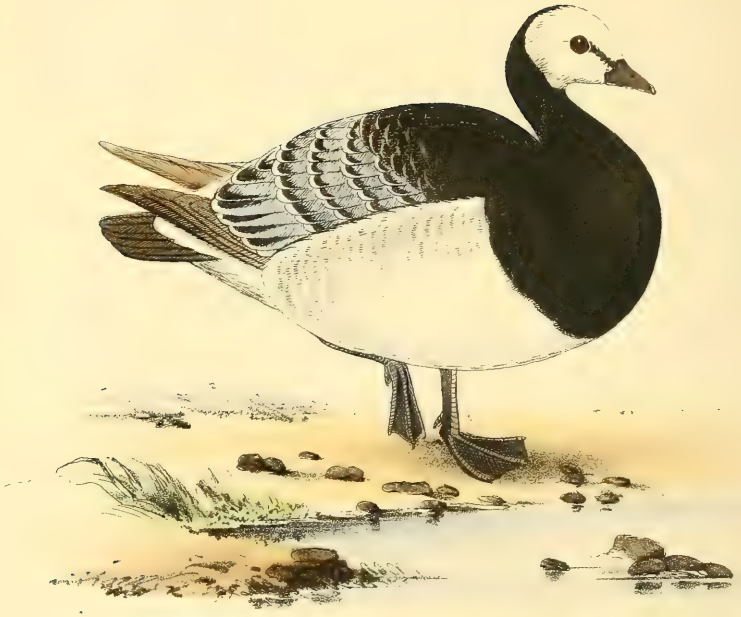


PLATE CCXXXI.

BERNICLE GOOSE.

ANSER BERNICLA.

The Bernicle Goose is a regular winter visitant in Great Britain, arriving in the autumn on our north-western and western shores, and on the northern shores of Ireland, in very large flocks; it occasionally frequents also the eastern coast, but only under peculiar circumstances, and in small numbers. The geographical range of this species extends over Europe, Asia, and America. The chief numbers reside in Lapland, Norway, Iceland, and Sweden, coming southward to the coast of the Baltic; also Jutland, Holstein and Holland, and the northern coast of France. In Asia it ranges from the most northern shores as far as Japan. In America it is very plentiful in the Hudson's Bay and Canada, but rare in the United States, which proves plainly that the Bernicle Goose prefers the colder regions of the globe, although the severity of the Arctic zone forces it to pass the winter in milder countries. The locality in which to seek for this bird is the sea-coast, particularly where the spring tides deposit marine weeds in abundance on extensive flats. Its migratory journeys are performed during both night and day

in considerable flocks, and invariably along the sea-coast, skirting the land around head-lands and bays, and passing only when necessary over the open sea; the roosting-places are also the sea-coast; consequently the Bernicle Goose does not frequent inland situations.

The Bernicle Goose is a very handsome bird, when seen busied in search of food, not only on account of its graceful bearing, but its marked plumage, with regular black bands across its back, on a bluish ground-colour, and the contrasted black and white of the head and breast; its movements are made with ease, and it is capable of running with great speed if required. On the water this bird swims readily, the body being so much above that element, that the knees generally keep on a level with its surface. On the wing the present species is very strong, and capable of performing various evolutions; when migrating, the flock generally consists in pairs or families, which follow each other closely, thus forming a line. The act of alighting or taking wing is accompanied with a great deal of noise, from their well-proportioned, powerful wings.

These birds are sociable among their own species, and less shy than the foregoing geese; they will join a flock of cravat geese, or white-fronted geese, provided the number of them exceeds greatly their own, and allow the same sociability to take place among their number in the opposite circumstance. Its voice or call-note is simple, and somewhat lengthened; it may be described by the word *gack* or *cack!* it also hisses when provoked.

In confinement, this bird soon becomes tame, and is a pleasing acquisition in a farm-yard collection; it lives to a considerable age, being of a hardy nature.

The principal food of the Bernicle Goose consists in the leaves, shoots, and roots of vegetable matter, particularly

such as are watered by the spray of the sea, and containing particles of salt; the *Poa distans*, and *Juncus bulbosus* are among its favourites; young shoots of rye and wheat are equally devoured, but not before a scarcity of the shore plants takes place. Among the food thus consumed, it likewise devours many of the insect tribe and their larvæ, that swarm among seaweeds, and in soft muddy localities; for which end the bird swims frequently in shallow water, and gropes for these substances with its head under water to glean the bottom. In confinement everything that the domesticated goose feeds on, suits this species, particularly green food on the meadows, and the trifolium tribe.

It is a well known fact that the Bernicle Goose does very well in confinement, but heat distresses it, making it pant with open beak.

For the purpose of breeding these birds assemble in large flocks in Lapland, the province of Archangel, and in the bogs and morasses of the Samoiedes, and in many similar northern parts, but we can learn no particulars on this subject, neither have we ever seen an egg of this species; our drawing of the bird was made from a living specimen in the Zoological Gardens in the Regent's Park, where several of them were kept for some years, but they have not hitherto produced eggs, or shewn any inclination to breed.

The entire length of the Bernicle Goose, is from twenty-four to twenty-six inches; its wing, from carpus to tip, about seventeen inches; there is a blunt nob or spur at the carpal joint; the beak is one inch three lines in length; legs three inches two lines; the middle toe two inches six to seven lines; the tail, consisting of fourteen feathers, is five inches and a half in length, the outer feathers being

not much shorter than the middle ones, making its shape more square than rounded.

The colouring of the plumage is as follows: the forehead, sides of the head, the entire face, chin, and throat are white; the space between the beak and eye black; the top and back part of the head, the whole neck, breast, and mantle are black; the rest of the upper parts are bluish-ash, with black and white regular bars; the quills are dusky black, the tail the same; the upper tail-coverts white; the breast, belly, vent, and under tail-coverts white; the thighs are faintly barred with grey; the beak, legs, and feet are black; the eyes brown.

PLATE CCXXXII.

BRENT GOOSE.

ANSER TORQUATUS.

The Brent Goose is a winter visitant in Great Britain, and more numerous in Ireland and Scotland than it is in England. Its appearance forebodes cold weather, particularly when large flocks are observed to be on the wing, as this species is driven from its summer haunts by the commencement of the northern winter; consequently a north wind brings it in the greatest numbers to our shores.

The geographical distribution of this Goose extends over most of the northern countries of the old and new world. In Europe and Asia it resides within the arctic circle, and on the borders of the icy sea; it inhabits also Spitzbergen, Iceland, Norway, Sweden, Denmark, and the Baltic, and visits Pomerania, Holland, and the northern parts of France. In America, Greenland, and the Hudson's Bay, it is also found, as well as in Canada, and appears in small numbers in the United States. The summer months are passed in the most northern parts that have been visited by travellers, and the winter in more southern countries, for the sake of the less

severe temperature of the atmosphere, but it is rarely seen farther south than Holland and the coast of France.

The locality chosen by the Brent Goose, is generally the sea-shore and its vicinity, but we have met with it inland, where the rivers have been swollen, and the country inundated by heavy falls of rain, or covered with snow. Of all descriptions of wild Geese, the present species is the most regular visitant on our shores, and the mos tnumerous; as incredibly large flocks of them sometimes cover the ground, so as to form a perfectly black field ; and the same remark holds good with respect to the surface of the sea, particularly about the mouths of large rivers or bays. In the month of November the Brent Goose arrives here from its summer retreat, remains the whole winter, and departs again in March and April. According to accounts that are given of this species, some few have been known to breed in Ireland, where their numbers exceed those that appear on our shores, but we cannot think otherwise but that such have been birds that have been partially tamed, by their pairing with individuals kept for decoys; as we cannot learn that it breeds in any of the intermediate countries on this side of the arctic circle.

The Brent Goose is a very beautiful and elegant bird, and shews to advantage when it walks about on the ground, in consequence of its smooth and close plumage, and its well-proportioned figure, heightened by the beauty of its subdued tints of slate colour and black; its movements are graceful and easy. Among the birds that are kept in St. James's Park in London, there is not one that has given us more pleasure to watch, although its colouring has nothing to attract the notice of the admirers of gay apparel. The flight of the Brent Goose is quick, and performed with fully extended wings, moved with regularity. These birds fly at a great elevation during their migratory journeys, in very large

flocks, and either in a single or double line, being headed by one individual, in the manner of other geese; when they only change their feeding ground, or move to a little distance, they fly low over the ground or surface of the water. When a flock of Brent Geese alight on the ground, the birds come down in a close body, and spread afterwards wider in the pursuit of their food; but the manner of their taking wing, at the time of their starting on a migratory journey, is very peculiar, for they rise at once from the ground, and mount by a spiral movement high in the air; after which they move off, and are soon out of sight.

By nature the present bird is sociable towards its own species, as well as towards others of its family; it is by no means quarrelsome, but rather timid; when a single individual has wandered from its companions, it seems quite lost, and easily becomes the prey of a sportsman. Towards man the Brent Goose is less shy than any other wild Goose; but this circumstance may be greatly attributed to the fact of their being entirely unaccustomed to the sight of human beings in the severe and uninhabited places where they are hatched and brought up; for after their sojourn with us for a certain time, it becomes no easy matter to approach them within gunshot.

The call-note of this Goose is peculiar to itself, and where a large flock of this species flies over head, the sound that proceeds from them has by many sportsmen been compared to the cry of a pack of hounds: its description is varied, sounding like the different expressions, *cuang*, *rott*, and *crock!* all expressed in a hurried and harsh manner. In confinement it thrives very well, provided it is supplied with plenty of water, such as a pond or ditch, and a grassy lawn or meadow. As food for the table, this species is very good.

The food of the Brent Goose in a natural state, consists

chiefly of sea-weeds that float on the surface, and marine plants that grow on the sea-shore, about the swampy and muddy grounds, that are alternately covered and uncovered by the regular ebb and flow of the tides of the sea; also of insects that are washed up and found in abundance on the weeds; it devours also blades of young corn, and grasses of divers kinds.

It has already been observed, that the Brent Goose breeds in very high northern latitudes; very great numbers are known to rear their young on the islands and shores of the Hudson's Bay; but by far greater multitudes go still further towards the North Pole, Spitzbergen, and the eastern borders and Isles of Greenland. In Iceland few are observed to breed.

Respecting the particulars of this species at the time of breeding, the locality chosen, and the number of eggs, very little is known; we are, nevertheless, able to figure the egg of the Brent Goose, having had a well-identified specimen in our possession, from which the drawing was made.

In Russia the Brent Goose is obtained in thousands, and preserved by salting. A well known method of obtaining water-fowl, by means of which great numbers of geese and ducks are caught on our coasts, is by employing nets in the shape of flues, like those used for catching fish; the flues are set up across some favourite inlet, and behind them decoy birds are kept, and the new comers being attracted by the decoy-birds, are driven into the nets by means of trained dogs.

The measurements of the adult male Brent Goose are twenty-three to twenty-four inches in length; its wing, from the carpus to the tip, fourteen inches; the bill is nineteen lines long, ten lines deep at the base, and eight lines broad; the legs are two inches eight lines long in the tarsus; the middle toe two inches two lines.

The colouring of the plumage is a dark slate-coloured

black on the upper parts, with the exception of a white spot on the sides of the neck; the upper tail-coverts, the vent, and under tail-coverts are white; the beak and legs are black; some of the feathers of the under parts are clouded and edged with dusky brown and grey. The female is smaller than the male, and her plumage is more rusty in colour.

The egg figured *232* is that of the Brent Goose.

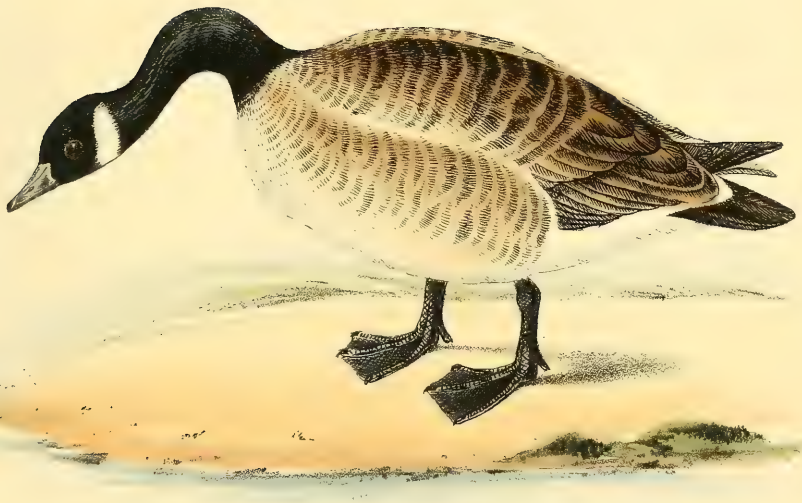
PLATE CCXXXIII.

CRAVAT GOOSE.

ANSER CANADENSIS.

The Cravat Goose is an occasional visitant in Great Britain, and is said to occur from time to time in small flocks in some of our western counties. The accounts received from several navigators of the northern seas make mention of the present species as abounding in the highest northern latitudes, being met with during the breeding-season in Greenland, on the coast of Spitzbergen, and the Hudson's Bay; in the spring and autumn it visits Canada, and in the winter penetrates as far south as Carolina. On the continent of Europe there is no instance on record of this bird having been captured in a wild state; we may consequently suppose that we owe its occurrence in this country to some peculiar circumstances of wind and weather, that combine to send stragglers to our coast from the American continent.

It is, in our opinion, no great wonder that flocks of the Cravat Goose occasionally visit our shores, this being the case with many other of the migratory species of America. The reason why such visits have not been more frequently noticed may be attributed to the want of interest taken in the subject of Natural History by the greater portion of



the more enlightened part of the community, and to the ignorance of those persons who are most likely to capture birds during the winter season. The wealthy sportsmen do not go, in general, in pursuit of birds during the most probable time of seeing them, namely, boisterous and wet weather, and the keepers or poachers frequently send their prizes to a distant market for sale, or devour them at home during times of dearth ; so that the chances of establishing facts on any such subjects of interest to an ornithologist are exceedingly limited.

The drawing of the present species was made by us from a bird in the Zoological Gardens, Regent's Park, and we have had opportunities of comparing it with several other birds in collections of living specimens ; its head and neck are generally carried in the manner represented in our Plate when feeding, and the movement of those parts resembles that of the snake in a great degree.

This bird is a very ornamental object, both on the ground and on the water, and its peculiar white gorget distinguishes it at first sight from other geese : its walk is easy and graceful.

The call-note of the Cravat Goose is much like that of the Mute Swan.

Respecting the reproduction of this species in a wild state, we must rely upon the accounts obtained from American ornithologists, who say that the breeding-places are near the water, among swamps, where the female forms a nest of dry grasses, lined with feathers, plucked from her own breast ; in it she lays six or seven eggs ; the male does not sit, but joins the family as soon as the young are hatched, and all remain together until the next breeding-season separates them in the usual manner. The Canada Goose apparently pairs for life.

The small flocks before mentioned as visiting us occasionally, are most probably families, consisting of the two old birds and their offspring: we are strengthened in this belief by the fact that, where such have been seen in a certain spot, part of them frequently fly off to some little distance, while two will remain on the ground, and continue there for some time, if unmolested.

The food of the Cravat Goose consists chiefly of the tops of divers kinds of herbage, and such insects, &c., as are found among the roots of aquatic plants.

The flesh of the Cravat Goose is very good, and the birds are consequently welcome visitors in dreary northern countries to the inhabitants, who obtain them in great numbers during the summer season.

The dimensions of the adult bird are as follows:—

The entire length three feet five or six inches; the beak two inches two lines; the tarsus three inches six lines; the wing, from the carpus to the tip, nineteen inches and a half. The head and neck are black, with a purple reflection; on the front of the neck below the throat is a white gorget that almost reaches up to the nape. The upper parts are cinereous brown, which colour extends over the sides and flanks, with lighter coloured tips to each feather; all the rest of the under parts are clean white; the rump, tail, and quills, are dusky black; the upper tail-coverts are white; the eyes are brown; the beak, legs, and feet, bluish black.

The egg figured 233 is that of the Cravat Goose.

232

233.

PLATE CCXXXIV.

RED-BREASTED GOOSE.

ANSER RUFICOLLIS.

The Red-breasted Goose is a very rare occasional visitant in Great Britain; it was noticed by Montagu and Bewick, and has occurred since in several instances, but only as solitary individuals, which seems to denote their being stragglers.

On the continent of Europe this bird has been observed under the same circumstances, one individual having been captured at a time in Belgium, one in France, and also single specimens in several different parts of the coast along the German Ocean. Temminck remarks, that the specimens thus obtained must have escaped from captivity; but, without wishing to dispute the possibility of it, we consider it improbable that at least twenty known specimens of this kind should have so escaped, while there is no collection in Europe on record where there has ever been an individual alive, with the exception of one that was captured alive in 1766, in Yorkshire, and kept for a short time during the summer months.

The present species inhabits the northern parts of Asia, between the Icy sea and Siberia, about the mouths of the

rivers Obe and Lena. In Denmark it has been met with near Ulrichsholm in Fuhnen, and near Ripen in Jutland, in small flocks of from four to six individuals. On the approach of the inclement season it migrates in larger flocks south, as far as the Caspian Sea.

Respecting the habits of the Red-breasted Goose, we cannot say more than that it feeds principally on vegetable matter, which seems to be verified by the good flavour of its flesh, and its entire freedom from any fishy or rancid flavour.

By nature this bird is shy and circumspect; individuals have been kept with other species in Russia, where they became tolerably tame, fed on grasses and green vegetables, but refused corn, and required much water to drink; but they soon died when the weather became warm.

On the swamps in the before-mentioned localities of northern Asia, these birds breed in great numbers, but respecting the nest and eggs nothing has hitherto been mentioned by northern travellers.

The call-note of the present species is said to resemble the word *tsjackwoy*, frequently repeated when on the wing; their migrations are performed in double lines, headed by one bird.

Our drawing being made from a specimen in the British Museum, we give the dimensions there obtained :—The wing measured, from the carpus to the tip, fourteen inches six lines; the tarsus two inches three lines; the middle toe and claw two inches two lines; the beak from the forehead one inch three lines. The entire length is said to be from one to two and twenty inches.

The colouring of its plumage is as follows :—A black band, originating at the upper ridge of the beak, extends over the head, nape, and down the back of the neck; another of the same colour begins at the throat and reaches to the eyes,

which it surrounds; between the beak and the eye is an oval white spot; from behind the eye, extending over the sides of the head, a white band runs parallel with the black list on the neck; on the ear-coverts is a triangular spot of rufous brown, speckled with black; the throat and breast are chestnut brown, beneath which runs a narrow white band; the mantle, back, rump, and quill-feathers, are black; the shoulder of the wing and coverts are dusky, and the feathers of the latter being tipped with paler edges, form two bars across the wing; the tail is black, tipped with white; the lower part of the breast, belly, and flanks, are black, some of the latter feathers bordered with white; the thighs, belly, vent, upper and under tail-coverts are white; the beak and legs are black; the eyes dark brown.

In old cabinet specimens the black plumage becomes dusky, little trace of the original tint remaining; the legs and beak also fade.

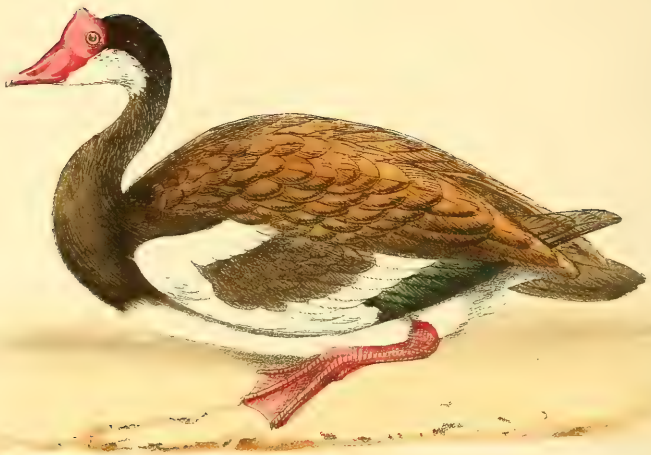


PLATE CCXXXV.

SPUR-WINGED GOOSE.

ANSER GAMBENSIS.

The Spur-winged Goose was admitted into the list of British Birds, and figured in Bewick's beautiful work, in consequence of a specimen that was shot near St. Germain, in Cornwall.

This individual, the only one ever met with in Britain, may have been driven hither by some unusual circumstances of wind or weather; or, which is more probable, it may have escaped from some collection, like many other rare visitors.

The natural abode of this bird is Africa; but respecting its habits, no accounts have as yet been received; we can therefore only mention the observations we have had opportunities of making on a specimen that was for some time living in the Zoological Gardens, in the Regent's Park.

Its manner of feeding was like that of most other

geese, namely, grazing; it also partook of other vegetable food.

In its manners this bird seemed sulky and over-bearing, and towards the other water-birds, that were kept in the same compartment, it was so very spiteful that some of the inmates were obliged to be taken to other parts of the gardens; the near approach of another species of Goose or Duck made it use its formidable weapon, the spur on the wing, with such effect, that the poor devoted object was careful to keep for the future at a distance from its persecutor.

Our drawing was made from the bird alluded to, and although its plumage was not in very good condition, we can vouch for the correctness of its representation, as well as for the accuracy of colouring in the beak, legs, and eyes, subjects that cannot be relied on in cabinet specimens.

The dimensions of the Spur-winged Goose are as follow:— The wing measures, from the carpus to the tip, eighteen inches, including the spur, which is seven lines: the beak, from the gape, three inches, from the forehead also three inches; from the tip of the beak to the front corner of the eye three inches nine lines; the tarsus three inches six lines; the middle toe three inches three lines, or including the nail, three inches nine lines; outer toe, including the nail, three inches five lines; inner toe and nail three inches, hinder toe one inch three lines; the second, third, and fourth quills of equal length, and the longest in the wing; the first and fifth seven lines shorter; the tertials are as long as the quill-feathers.

The beak and fleshy knob on the forehead and orbits are red, as also the legs and feet; the eyes are amber-coloured.

The upper part of the head, neck, and sides of the breast are dusky; the chin, throat, and ear-coverts are white; the

mantle, back, wing-coverts, and tertials are deep metallic brown colour; reflected with purple and copper in different lights; the upper and outer ridge, including the spurious wing, are white, as also the greater wing-coverts, forming thereby a white band across the wing; the secondaries are rich deep green; the quills are dusky; the tail wood-brown; the belly and under tail-coverts are white; the vent dusky.

The egg figured 235 is that of the Spur-winged Goose.

PLATE CCXXVI.

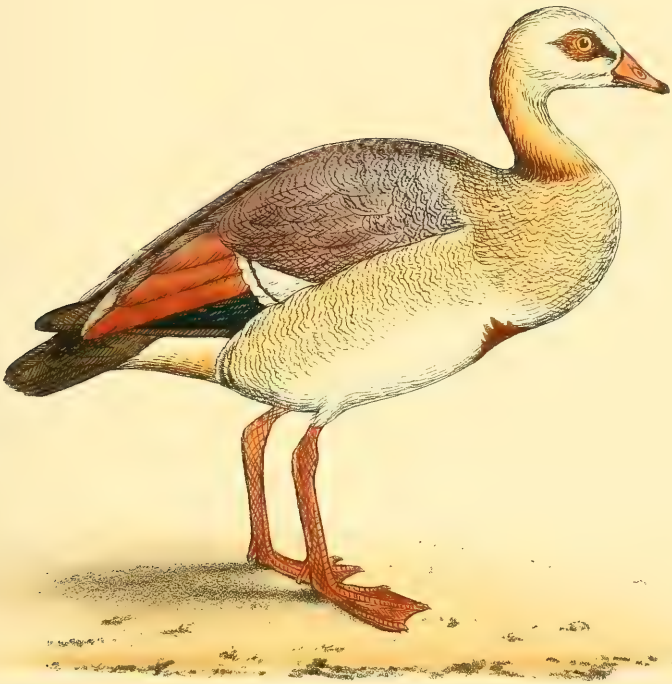
EGYPTIAN GOOSE.

ANSER EGYPTIANIS.

The Egyptian Goose is an occasional visitant in Great Britain, and although some ornithologists consider it illegal to place it among the British Birds, we have Colonel Hawker's authority for doing so, in consequence of the frequent occurrence of the species in many parts of the country, under circumstances of undoubted wildness; especially the occurrence of a flock of nearly eighty, that visited Hampshire, of which some were shot.

The geographical distribution of this species extends over the entire continent of Africa, from Egypt to the Cape of Good Hope; from thence they visit the south of Europe, principally about the Danube: they also frequent the islands of the Archipelago, and Sicily.

The locality preferred by the Egyptian Goose, seems undoubtedly the shores of inland seas, rivers, and lakes; from



which it wanders at times to feed upon the pasture-grounds in their vicinity; by the sea-side it is not met with.

In consequence of its ornamental plumage and productive breed, many of this species are kept in a half domesticated state in parks and pleasure grounds; we have consequently had many opportunities of observing them, when the peculiar attitudes of the bird and its colouring, frequently reminded us of ancient Egyptian figures and drawings.

The food of this bird consists in herbage, barley, oats, turnips, carrots, and cabbages, on which they thrive exceeding well in confinement; also the roots of aquatic plants; worms, snails, &c., are greedily sought for by the water side.

In the warmer climates of Africa, this species builds its nest invariably near the water, and frequently on the edge of such springy places, as occur in the sandy, dry localities; the nest has also been found on the top of matted water plants, the floating of which was prevented by the long fibres that are connected with the bottom. The nest itself is made of reeds, stalks of water-plants and leaves, being lined with cotton and feathers. The birds pair for life, and are much attached to each other, and their watchfulness for their young is very remarkable.

The eggs are from six to eight in number, and in size and colour as represented in our plate.

The general appearance of this Goose is peculiar, in consequence of its possessing longer legs than any other of its family; its body is generally carried less horizontally, and its head more elevated; giving altogether the appearance of more dignity than is possessed by most of the Goose tribe; its walk resembles in some measure that of the bustards; and is pursued with ability and tolerable speed.

On the water it swims apparently with great exertion, having its fore-parts very low in the water, and its hinder parts very much elevated; to such an extent, that when swimming its knees are invariably above that element. When the Egyptian Goose is pursued, it does not take to the water, unless as a means of crossing over to the opposite shore, but it runs for the shelter of some bush or thicket of long herbage, which proves the fact of its being more a land than a water inhabitant. On the wing the Egyptian Goose is strong, and easily to be detected by its appearance, in consequence of its very long pinions, but it has great trouble apparently in rising from the ground; during its migrations it flies high, and when in a flock, they form double lines, after the manner of other Geese.

In its natural disposition, the Egyptian Goose appears spiteful and quarrelsome, but at the same time shy; yet when once tamed, it is apparently satisfied; it requires, nevertheless, much care and attention.

Its call-note resembles most in its utterance that of the common goose, yet not without a peculiarity of its own.

The dimensions of this goose are as follow:—

The entire length twenty-three inches; the expanse of the wings fifty-six inches; the beak two inches; the tarsus three inches seven lines; the middle toe, including the claw, three inches three lines.

The adult male has the beak red, with the nail, margins and base black; the eyes are yellow: the legs and feet red; the throat, forehead, and crown, are white; the nape and back of the neck, the back and tertials are ferruginous brown, finely pencilled with undulating transverse lines; a patch surrounding the eyes, chestnut-brown; the cheeks and sides of the head are white with a tinge of rufous; the base of the neck is surrounded by a ferruginous band;

the upper part of the wing, including the wing coverts, white ; the smaller coverts are crossed near the tip with black, forming thereby a narrow black band ; the quill-feathers are black, edged and tinged with green ; the secondaries reddish brown, with the edges chestnut ; the lower part of the back, the rump and tail dusky black ; the front of the neck, the breast and forepart of the belly are buff-coloured with a patch of chestnut on the breast ; the rest of the under parts are pale wood brown ; the flanks are pencilled with undulating transverse lines, but these are so very fine that they in many instances remain unnoticed by the common beholder ; the under tail-coverts are rust yellow.

The plumage of the female differs in being less bright, and the chestnut coloured patch round the eyes, the mark on the breast, and the ring around the base of the neck are smaller and not perfect ; the white on the wing is less pure, and the feathers of the back, secondaries and tertials are tinged with grey, the beak and legs are flesh-red, and the eyes brownish.

The egg figured 236 is that of the Egyptian Goose.

PLATE CCXXXVII.

SWAN GOOSE.

ANSER GUINEENSIS.

The Swan Goose having been figured by Bewick as a partly-naturalized species, we admitted it as such into our quarto edition of British Birds; consequently, having promised to figure every subject that we introduced in our former work, we cannot very well omit it at present.

According to the best authenticated statements, the Swan Goose was brought over to Britain from the coast of Guinea, and it has apparently thriven very well in this country, as it may be met with in many farm-yards, on the borders of ornamental pieces of water, and even in cottage grounds.

Its chief haunts or preferred localities are grassy meadows, commons, and the banks of inlets and ditches with running water, where it feeds principally on grasses and

grain; although it wanders about and roosts in the same yards and out-houses with the tame or common domestic Goose, it apparently prefers the immediate company of its own species, being most frequently seen to follow on each other's footsteps; it is, besides, more fond of straying, and on this account rather troublesome to watch over.

Like all other Geese, it is very much at home on the water, but most of its time is spent on shore.

Its note is much the same as that of the tame Goose, but uttered in a higher pitch, and more frequently repeated.

The measurement of the present species is about three feet and a half in length; the beak, from the gape to the tip, is three inches three lines; the tarsus, four inches; the middle toe and nail four inches; the outer toe nearly the same.

The beak is generally black, including the knob, although the knob and base of the beak are in some individuals orange-yellow; the base of the upper mandible is encircled by a white band that originates at the corner of the mouth, and reaches across the forehead to the opposite corner of the same; the legs are black; the middle and outer toes are scaled, the inner toe and legs reticulated; the top of the head is dusky brown, at the hinder part of which begins a black line, that goes down the nape and entire length of the back of the neck; the upper parts of the plumage are cinereous brown, with paler edges to the feathers; the neck and breast are buff-colour, approaching to ochrous yellow; the belly, vent, and under tail-coverts, are white; the flanks are cinereous brown, with white edges to the feathers.

Under the chin or throat is a loose pouch, almost bare of feathers.

The female is somewhat less in size, and the knob on the beak not so extended.

The egg figured 237 is that of the Swan Goose.

PLATE CCXXXVIII.

CREAM-COLOURED GOOSE.

ANSER ALBA.

On the 11th of January, 1841, a snow-white bird, the original of the annexed Plate, was brought to us. It had just been shot on the Thames, near the village of Shepperton, Middlesex, where we then resided. The bird had fallen on the drifting ice, the river being partly frozen over, and the young sportsman who had brought it down was obliged to walk on the ice in order to reach his prize; in making this attempt the ice broke under him, and he fell through into the river. He had the good fortune to rise again in a part of the stream that was free from ice, and eventually succeeded not only in gaining the shore, but in bringing the object of his pursuit safely with him.

It was a beautiful bird, and not known by name or appearance either to the person who had shot it or to ourselves: we consequently, after purchasing it, took full particulars of its appearance and measurements, but being at last unable to reconcile it with any known species, we concluded, rather hastily, that it was a half-bred individual from some of the preserves or decoys in one of the neighbouring counties, which had been induced by the severity of the season to stray from its usual haunts.

Under this impression we consigned the individual to the household authorities to have it dressed for dinner, not doubting its qualifications for the table; we reserved only the head, foot, and wing for future examination. But, to our dismay, on meeting with our goose again on the table, we ascertained its total unfitness for the purpose for which we had destined it, as its flesh was so strongly tainted with a fishy and rancid flavour as to be entirely unpalatable; so much so that it was finally rejected even by the quadrupeds of the family.

We now, however, doubly regretted having destroyed a specimen, with the exception of the fragments before mentioned, of what now appeared to us an undoubtedly wild bird, and one that, as far as we could ascertain, was hitherto unknown to naturalists, or at least undescribed. The only compensation we could make to ourselves was to figure the bird in our quarto edition of British Birds, in hopes that some one of our contemporaries might be more enlightened than we ourselves were on the subject of its name and history.

With the same view we again figure our Cream-coloured Goose in the present work, hoping that time will unfold its history, which we have in vain sought in the works of many ornithologists of Europe and America.

The entire length, from the tip of the beak to the extremity of the tail, was two feet three inches; its weight six pounds; expanse of the wings three feet; the tail extended four inches beyond the tips of the wings; the toes, when the bird was held up, reached to the tip of the tail; the beak, from the tip to the forehead, two inches three lines, from the gape two inches nine lines, the same from the frontal corners to the tip; from the tip of the beak to front corner of the eye three inches six lines;

the upper mandible measured one inch in width throughout; the wing, from the carpus to the tip, eleven inches three lines; the second quill-feather the longest in the wing; the tail contained fourteen pointed feathers, the outer two inches shorter than the middle ones; the tarsus two inches three lines; the middle toe and nail two inches nine lines; outer toe two inches six lines; inner toe two inches two lines; hinder toe eleven lines.

The plumage was entirely without a spot; the head, neck, and entire body delicate cream yellow; the wings and tail pure white; the throat was slightly ribbed longitudinally, like the Common Goose. A slight shade of ash colour on the nape, mantle, and sides of the throat; the legs, toes, and webs pure transparent red lead; the eyes brown; the eyelids pale orange; the beak yellowish flesh colour at the base, redder towards the centre, and rich ruby towards the tip; the lower mandible flesh colour; the nail of both mandibles dusky horn colour, as well as the ridge from the forehead to near the tip, extending over the membrane of the nostrils. A knob upon the ridge of the upper mandible about one third from the tip; the nails of the toes pale flesh colour; the soles of the toes the same; the first quill-feather sinuated.

PLATE CCXXXIX.

MUTE SWAN.

CYGNUS OLOR.

Although entirely excluded from the list of British Birds by some of our historians, we consider that the Mute Swan has fully as many claims upon us as a half reclaimed, or even naturalized species, as several birds that are so included, since it lives in many of our rivers in a state approaching in the nearest possible degree towards entire liberty, if it does not actually visit Britain occasionally as a voluntary migrant.

This species inhabits the northern parts of Europe and Asia, preferring the climates of moderate temperature to those of extreme cold. In the southern parts of Scandinavia and Russia, about the large seas of southern Siberia it is most plentiful. Hungary, Poland, Prussia, and the Baltic are among the places of their resort on the approach of winter: the greater numbers however go to the Caspian Sea, the seas of Persia and Greece, and also to Sardinia.

In all these countries some remain to breed, and in most of them the birds are not only unmolested, but under the protection of magistrates and proprietors of the soil.

It is hardly requisite to state that the localities frequented by the Mute Swan are in the vicinity of water, either sea, river, or lake. During hard frost it necessarily comes to land, frequenting the meadows that border the water, or springy places that remain unaffected by the frost.

The food of this bird consists of aquatic vegetable matter, roots, leaves, and grain, insects and their larvæ. The spawn of fish it consumes to such an extent, that where many of these beautiful creatures are kept as ornaments, the proprietors pay dearly for their maintenance, owing to the myriads of spawn that are consumed by them. We are quite sure that the fishery of the Thames suffers more from the depredations of these birds, than from all that the poachers can do by their nightly labours.

The nest of the Swan, which is constructed on the ground by the water-side, or on some boggy projection or mound in the river or lake, is made of flags and rushes piled carefully one upon another. The height of this structure depends upon the taste or foresight of the birds, for both male and female work at it; and after the hen-bird has begun to sit, if there is a probability of the water rising higher than usual, the nest is raised in a very interesting manner, which we have witnessed several times; the male carries fresh supplies of flags, and the female draws them into the nest, and works them under the eggs, thus raising herself and her eggs by degrees.

The eggs produced vary in number, according to the age of the parent; young birds do not exceed five or six, whereas the old ones usually lay seven or eight. The time of incubation lasts from five to six weeks, after which the young brood come forth, and remain the first day in the nest, where the mother thoroughly dries them; the day after they follow the parents, who instruct them in swimming and feed-

ing. The attention bestowed by the parents upon the young is incessant, and when fatigued by the strength of the stream, or requiring to be removed to a distance too great for their young capacity, the hen-bird takes the young ones on her back, which she accomplishes by lowering herself a little in the water, and occasionally assisting them to ascend with her foot, and in this manner they are carried in safety to some more desirable spot. The shape of the swan's back, which is very flat, is well adapted for this purpose, and when her wings are raised the young ones repose in the most beautiful and safe cradle imaginable.

The Mute Swan is indisputably the most elegant of water birds, when floating on its natural element; and it is, besides, the best swimmer. The beauty of its arched neck and its exquisitely white plumage, as well as its finely proportioned figure, have at all times called forth the admiration of the poet, the painter, and the lover of nature, and must attract the attention of the most common observer. On the ground, or in the act of walking, it is not so much to be admired; its walk is helpless and waddling. Its flight is performed in a straight line, at the elevation of three or four hundred feet from the ground, when in a wild state; while those that are partly domesticated, rarely fly more than twenty feet from the ground.

Swans, like many others of the feathered race, appear very susceptible of atmospheric changes, and are usually considered to shew their consciousness of approaching storms by their restlessness; we have ourselves many times seen their anticipations verified by the result.

The foresight of the Mute Swan, also, on the subject of the floods, to which this and other parts of the Thames are periodically subject, is very remarkable; and so well known, that, when in the spring the Swans are seen raising their nests

an increase in the height of the water above the usual average is a safe prophecy.

In a wild state the Mute Swan is said to be very shy, although the domesticated subjects are generally tame enough, and sometimes troublesome to fishermen and persons whose occupations are by the water side. At some seasons, however, they are formidable, on account of their strength and pugnacity; we know an instance of a Mute Swan, which was kept on a piece of water in a park, attacking a man with such fury as to break his arm with a blow from his powerful wing: and we lately witnessed a swan face a spaniel dog with such determination, as to drive the animal from the spot.

The call-note of the Mute Swan sounds like the word *maul, maul!* expressed in a nasal, but gentle tone. The sound produced by the strong pinions of this bird when flying is very loud, and may be heard at a great distance.

Although apparently naturalized in some parts of Britain, namely on the river Trent and elsewhere, where they are said not to be under the dominion of any master, the Mute Swan does not appear to be on the Thames so entirely independent, since it is considered expedient in severe winters to house and feed these creatures, under the impression that when there is much ice in the river they are unable to obtain their food. Under these circumstances, when many are collected together in a barn, it is very interesting to observe, at feeding time, with what solicitude each male watches for the interest of his own mate and young ones, and takes care that they are well served before he partakes of any food himself.

While watching Swans feeding as they float along by the banks of the river, we have noticed that they seem unable to swallow the grass and herbs that they crop along the

margin, until they have saturated them with water, since they are invariably seen, as soon as they have filled their bills with grasses, to dip their beaks into the stream.

We believe that Swans are not so destructive among fish as they are among their spawn, since their movements are too measured and deliberate to enable them to secure such active prey, although their relish for fish may be observed and proved whenever a fisherman casts the small dead bait from his boat's well.

The entire length of the Mute Swan is from four feet eight inches to five feet; its weight about thirty pounds.

The entire plumage is white; the head and neck more or less tinged with rust-colour, more so in the spring of the year than at other times; the nail on the beak, the edges of the mandibles, the base, and the edge of the nostril, as well as the lore to the eyes and tubercle are jet black; the beak itself yellowish red; the legs and toes black; the eyes dark brown.

The egg figured 239 is that of the Mute Swan.

239.

240.

PLATE CCXL.

WHISTLING SWAN.

CYGNUS FERUS.

The Whistling Swan, or Hooper, is a frequent winter visitor in many parts of Great Britain, and in seasons of great severity occurs in very considerable numbers. It is not only met with in the northern parts of Britain, but occasionally extends to the most southern counties, spreading along the coast and rivers. Their arrival in England takes place early in the autumn, and although preferring the sea-coast, they are, in stormy weather, seen a considerable distance inland.

In October of the present year, 1848, many were killed about Gravesend; and in our own neighbourhood, twenty miles above London, several were seen flying about the low lands by the river Thames, during the autumnal flood, driven inland doubtless by the heavy gales that prevailed at times at that season.

The geographical distribution of this species extends over Europe, Asia, and America, the summer months being passed in the northern, and the winter in more southern countries. The Whistling Swan, or Hooper, does not go so far north as some of the Anatidæ, as it seldom extends much

beyond the Arctic circle. In Europe it abounds chiefly in Sweden, Lapland, and Russia: in Asia it is found in Siberia and Kamschatka, and in Hudson's Bay in America.

On the approach of cold and inclement weather it migrates southward, through Canada and the United States as far as the Gulf of Mexico; in Asia it descends as far as Japan, China, Persia, Syria, and Egypt: at that time of the year it is very numerous in the vicinity of the Caspian Sea and the mouth of the Wolga; also on the Black Sea, from whence it wanders to Turkey, Greece, Hungary, and Italy. The numbers that pass on the approach of winter through the central parts of Russia and the Baltic, wander to the southern parts of Sweden and Denmark, and from thence visit our shores, as well as Prussia, Poland, and Holland in moderate numbers, and pursuing the sea-coast make their appearance occasionally on the coast of France. Some instances are also on record of its appearance inland, namely in divers parts of Germany, particularly Westphalia, the Rhenish provinces, Saxony, Dessau, Worlitz, and others. The greater numbers pass the winter on the sea, close in shore, in bays and sheltered situations, and are seldom seen inland, but when the weather becomes boisterous and stormy, small parties are, however, met with on the swamps and inundated lands that border large rivers, while the larger flocks remain on the sea and coast in the same latitudes.

The autumnal migration takes place in general in October, and in April the spring migrations commence towards the north and north-east. The migratory journeys of this species are chiefly performed during the day, either in large flocks, consisting of hundreds, in families or pairs. When united in flocks the birds fly in a single line, which becomes of very considerable length, where there are many together. Although the Whistling Swan is met with in large numbers

on the sea, in our climates, it rarely goes any distance from the shore, as it requires shallow water, where the bottom is well supplied with weeds within the reach of its long neck; swampy shores and flooded grassy meadows seem to suit its habits to a great degree. In its summer locality it is said also to frequent swamps of all kinds in the most secluded situations.

The general appearance of the present species is not so graceful as that of our tame swan; it usually carries its neck almost straight, and may thus very easily be distinguished from its congener by a sportsman, or person who is acquainted with both species; on a near approach the yellow beak is so conspicuous as to serve as a good mark of distinction; the proportions of this bird are also less elegant than those of the mute swan.

The movements of the present species, when on the ground, are very expert, it walks with ease, and can run very rapidly, which many a sportsman must acknowledge, from the fact that it requires a good pair of legs to overtake a Whistling Swan that has been winged. In the exercise of swimming the Whistling Swan is not much more expert than the common goose, and this may be attributed to its more frequently employing itself in wading among swamps, than in floating on the liquid element. The flight of the Whistling Swan resembles that of our tame swan in most respects, but in consequence of its greater practice, it flies apparently with more ease and with less noise; yet on taking wing, or alighting, it makes a considerable noise, and may be heard at a great distance.

Like most birds in a wild state, the present species is shy, yet not remarkably so, as we have frequently seen them walk about on Chertsey Mead, in Surrey, during flood-time, in open day, and almost within gun-shot, without taking notice

of our approach; and while flying over the surface of the water, following the course of the river, they have frequently been shot by persons who are constantly on the look-out for wild-fowl. On one occasion last winter (1847), while in pursuit of some wild ducks, it being a dark night, six or seven of these birds allowed us to come quite close to them, while they were feeding in a pool of water in the mead, but owing to the ground being partly covered with snow, we did not see them in time to fire. We have also seen them occasionally on the wing by daylight, flying low enough to shoot with a common gun. These facts prove to us that the bird is not too shy to be approached within gunshot, under most circumstances.

Why this species is called the Whistling Swan is not exactly apparent to us, as we have never heard it whistle. The appellation of Hooper is nearer to the sound produced by its call-note, and the noise of its pinions. Another of its notes resembles the word *killclee* uttered in a high pitch, also *hang*, *hang*, more mildly expressed. The sound produced by its pinions while flying, resembles the words *grou*, *grou!* It may be supposed that the combined noises proceeding from a flock of these birds may produce a perfect concert, in consequence of the different modulations of tone in age and sex.

The present species, when obtained at an early age, becomes soon tame, and may be kept for a length of time in confinement, or half domestication; in fact, greater numbers of the Whistling Swan are kept on ornamental pieces of water in Russia than of the mute swan; they are by far more good-tempered and more attached to their keepers.

The food of this bird consists of green vegetable matter, grain, and fruits; also insects and their larvæ, and worms of most kinds, as well as small frogs, and the small fry of fishes.

The manner of feeding in this species is peculiar; it not only seeks for its food by preference in shallow water, but it turns up the boggy ground in order to obtain roots and worms; to such an extent is this done, that where a number of these birds congregate, the ground is perfectly broken up. The grain before-named consists of barley and oats, and the fruit, plums in particular; it is therefore to be supposed that it feeds also on berries, in its northern localities.

The countries mentioned, in which the Whistling Swan chiefly breeds, are Finland, Siberia, Iceland, and Hudson's Bay; as well as Sweden, Denmark, and some of our northern islands, including Orkney and Shetland. The places chosen are bogs and swamps. About the middle of March the preparations for breeding commence, when young birds choose their mates for life; soon after the nests are constructed, which very much resemble those of the mute swan, but are invariably placed on the ground in spots where man cannot obtain footing; each pair keeps its chosen ground free from intruders, while frequently terrible battles ensue.

The number of eggs varies from five to seven. The eggs are about the same size as those of the mute swan, but more blunt at the ends, smoother in texture, and of a paler green colour.

The entire length of the Whistling Swan amounts to four feet six, or four feet ten inches. The wing from the carpal joint to the tip, twenty-four inches and a half; weight twenty-five pounds.

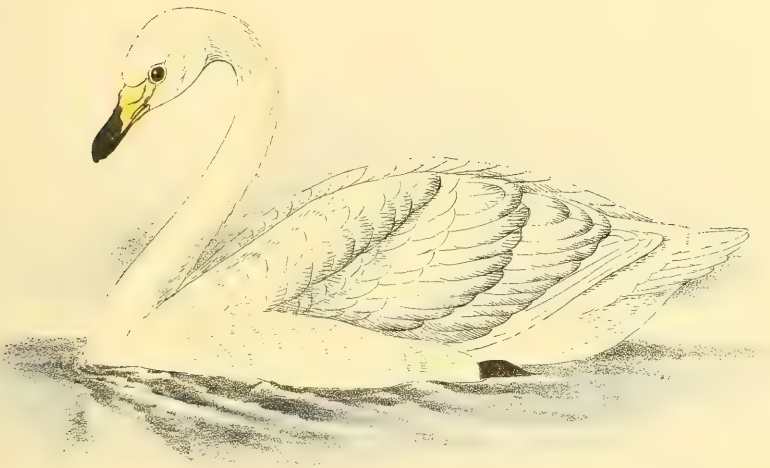
The entire plumage is white; the tip of the beak and edges black; the rest of the beak, lore around the eyes, and the fleshy part of the under mandible, gold yellow; the eyes brown; the legs and feet are greyish-black.

PLATE CCXLI.

BEWICK'S SWAN.

CYGNUS BEWICKII.

Bewick's Swan, which has of late years been recognised by Mr. Yarrell as differing, not only in size, but also in many other respects from the hooper, or whistling swan, is a winter visitant to Great Britain, more numerous in Ireland than England ; it appears, however, to visit Britain principally during the most severe winters. The greater attention that has of late years been paid to the subject of ornithology, has apparently opened the eyes of sportsmen wider, or the prices that are paid for new species, have made persons generally more careful in examining what they obtain. To these causes we probably owe the tardy justice, at last done to several species formerly unrecognized. Bewick himself, with whose name this species is now, out of compliment, allied, must have been acquainted with this bird, since he has given a representation of its head as a vignette to his "Elk or Hooper" (synonymous with our whistling swan), although his acquaintance with this species appears not to have been sufficient to enable him to distinguish it from its congener. In this vignette the black portion of the tip of the beak extends beyond, and surrounds the orifice of the



nostril, which is not the case with the hooper; in that bird the nostril itself is the line of demarcation between the black and yellow portions; the one colour occupying the lower, the other the upper side.

We have also noticed authors to speak of the great diversity in the weight of the hooper, even among those killed from the same party, which induces us to believe that the hoopers and the Bewick's Swan associate occasionally in the same flock.

The present species is probably an inhabitant of the north-eastern parts of Europe and Asia, and the islands of the Arctic Ocean; it is said to be plentifully distributed over Siberia, and in North America equally so.

We have reason to believe that this is the swan that inhabits Iceland, where there is only one species known. It there frequents the bogs and swamps on the borders of lakes in the most unfrequented mountainous parts of that island, during the summer; from whence it migrates southward, to pass the winter in the vicinity of the warm springs, and during very severe weather it extends its journey still farther towards the south. The autumnal migration commences in October, and the return in the spring in the month of March, the birds arriving already paired at their breeding-places early in April; these journeys are performed during both night and day. When the present species alights on a large pond or lake, it almost immediately seeks the shore, in order to wade among the boggy, shallow parts, where it is enabled to reach the bottom with its beak, in order to obtain its food. This principally consists in roots, stalks and leaves of aquatic plants, the larvæ of insects, and worms.

It appears that the manner of breeding in this species differs in no way from that of others of its family, for in

Iceland, where these swans breed, it is said that many pairs congregate in one spot, although each pair keep their immediate space to themselves, without allowing their neighbours to interfere. The nests are composed of boughs of the northern willow, rushes, and leaves of divers flags, &c., piled one upon another, without much labour being bestowed in weaving them together; the eggs are usually from five to seven in number; but we forbear to figure one until we have obtained a specimen that we can sufficiently rely upon.

The entire length of Bewick's Swan is three feet nine inches; the beak to the forehead, three inches six lines; to the eyes four inches four and a-half lines; the middle toe, five inches three lines; the wing twenty inches six lines from the carpus to the tip.

The entire plumage white; the colours of the beak are black and orange yellow, the former occupying the tip, and extending beyond the nostrils, as before-mentioned, and covering the ridge of the mandibles, including also the fleshy part of the under mandible; the base and lore orange yellow; the legs and feet dull black; the eyes dark chestnut.

PLATE CCXLII.

BLACK SWAN.

CYGNUS ATRATUS.

We are induced to figure the present species, in consequence of a specimen of this bird having been brought to us very recently, that was killed very near to our residence. We do not presume to say that the bird was perfectly wild, but the circumstances attending its capture were rather peculiar, and may possibly lead to the consideration, whether this species has extended itself over countries from whence it might have come to our shores; as it is very improbable that it should, under any circumstances, have travelled of its own accord so great a distance as from New South Wales, which is usually considered as its native place, according to all accounts given of the subject. The particulars of its capture are as follow:—

On the fourteenth of November last, a person of the name of Taylor shot a Black Swan on the Thames near Chertsey, under the following circumstances. On the Sunday morning previous, a gentleman stood talking with Mr. Phillips, a person who attends upon Chertsey Lock, when ten Black Swans came flying across the Thames, quite near enough to be recognised as such by both parties; a little

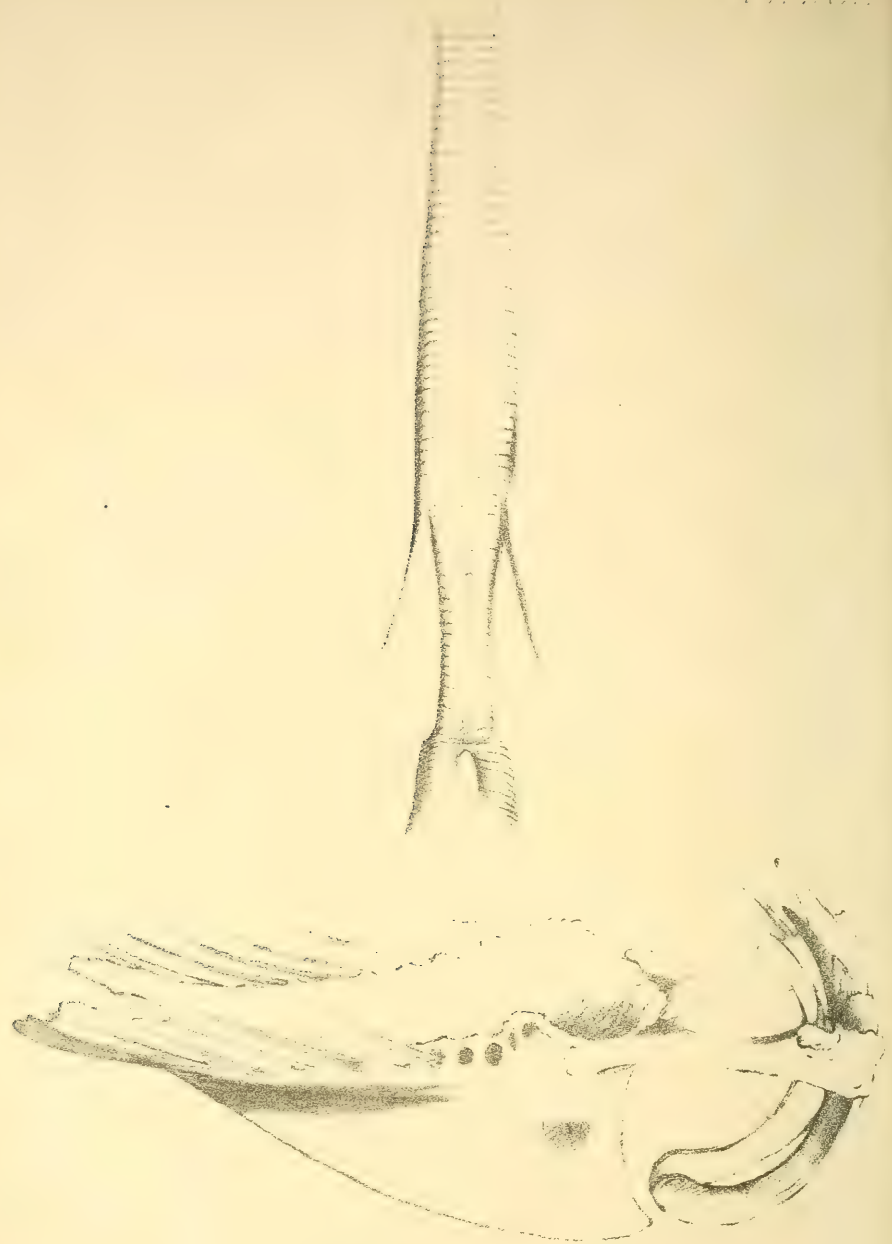
later in the day the bargeman of a barge that was coming from Staines, inquired of Mr. Phillips, if he had seen ten large Black Geese fly over; and on the Monday one was seen again between Staines and Laleham, swimming in a wide part of the river. On Tuesday the fourteenth of November, Mr. Phillips, on seeing one of these birds settle on the river, went to tell Taylor that he might have a shot; and consequently, the person in question, after creeping on hands and knees across the muddy mead and through a bed of osiers, came near enough to the bird, and killed it. We purchased the prize for the purpose of figuring it in our work, particularly as we were on the point of bringing out that family in our succeeding numbers; and the bird is now in our possession.

In the course of the same week, travelling to town by the South Western Railway, we met a gentleman, who told us that two Black Swans had been killed by a poor man in the neighbourhood of Gravesend on the Thursday previous, and that they were sold in Gravesend market at the same time with several hoopers.

The bird in our possession is a young male; its flesh was brown, tender, and palatable.

The measurements from the tip of the beak to the tip of the tail, four feet; expanse of the wings five feet six inches; its weight nine pounds.

The beak measured from the tip to the gape, two inches and three-quarters; from the tip to the front corner of the eye, three inches five-eighths; depth of the beak at its base, one inch and a quarter; the wing, from the carpus to the tip, eighteen inches and a half; the quills extend one inch and a half beyond the tertials; the tail one inch and a half beyond the tips of the wings; from the tip of the beak to the junction of the neck and back-bone,



twenty-three inches; the tarsus four inches; hind toe and claw one inch; middle toe five inches and a quarter. The toes are scaled up to the last joint, reticulated beyond; legs also reticulated.

The first and fourth quills of the wing, of equal length, the second the longest in the wing.

The primary quills white, except about an inch of the tips which are black; spurious wing black; secondaries white, with two inches of blackish-grey at the tips; greater coverts white at the base; rest of the wing sooty black, tipped with sepia.

The head and neck black, with sepia tips to the feathers. The beak orange; the tip flesh-colour; nail whitish horn-colour; a white band across the beak near the nail.

The eyes are rufous brown; the legs dark ash-grey, tinged with olive on the webs.

On displacing the feathers of this bird in any part, new, small, jet-black feathers, still in the quills, may be found imbedded in the thick white down.

In a subsequent number we intend to give a representation of the trachea and breast-bone.

PLATE CCXLIII.

RUDDY SHIELDRAKE.

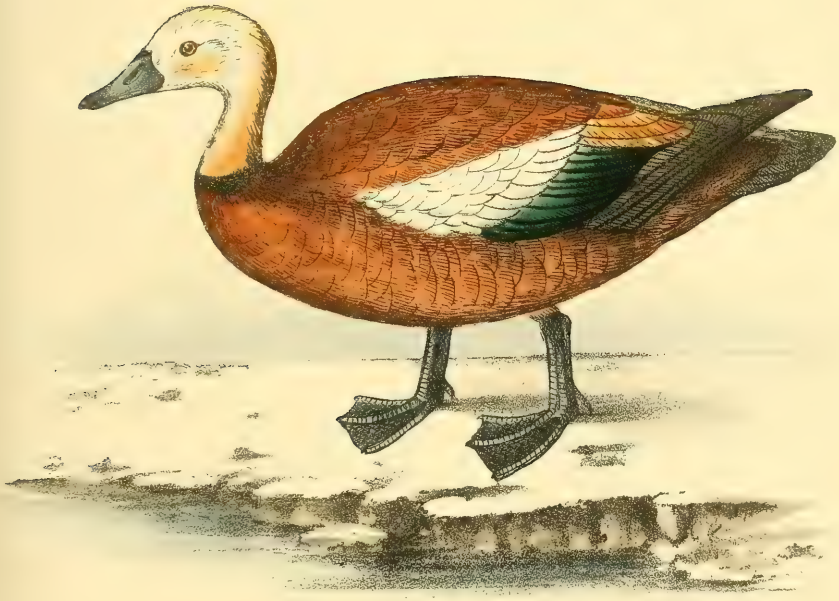
TADORNA RUTILA.

The Ruddy Shieldrake is an occasional visitant in Great Britain, occurring during very severe winters, but rarely at any other time; the reason appears, not that it only wanders during such extraordinary weather, but that it is driven from its usual migratory roads towards our shores, under circumstances of unusual combination. This bird being not a maritime species, is a sufficient reason for its rare occurrence with us, as we shall hereafter more fully enter upon.

The geographical distribution of this species extends over many parts of the Old World; it is found in the eastern part of Europe, such as Russia, Hungary, Austria, Turkey, Greece, and parts of Italy. It is also pretty generally spread over Asia, being met with in Persia and India. In Africa it extends as far as the Cape of Good Hope.

The chosen localities are rivers, lakes, and large ponds, which it prefers to seas or small pieces of water; in water that is covered with rushes or tall weeds, it never remains by choice, in consequence of its exceedingly shy nature.

The food of the Ruddy Shieldrake consists in aquatic



plants, insects and their larvæ, worms, and small fry of fish; the latter it devours in such profusion that its flesh is not fit for the table of a civilized European stomach.

The migrations of this species are performed in families of eight or ten in the month of September, and in pairs in April; these bird fly like others of their family, one behind the other. They are very sociable among their own species, but rarely seen in the company of other ducks. The pair are very much attached to each other, to such a degree, that if one of them has been shot, the other will not leave the spot until it is driven away by two or three shots being fired at it.

The general appearance of the Ruddy Shieldrake is more like the Goose than the Duck tribe when it is on the ground.

It walks in pursuit of its food generally with its head inclined towards the ground, at the same time apparently looking watchfully about for fear of hidden or approaching danger; its movements are easy withal, and it can run at a tolerable rate. Its extremely shy nature induces the bird to keep as far as practicable from the shore, if the locality is a large pond, lake, or river: it is also very wild, restless, and roving, therefore very difficult to tame, although some are kept in menageries in the south of Europe, for their handsome and bright plumage.

The call-note, when the bird is on the wing, is said to resemble the note of a clarionet; when on the ground that of the peacock; and when they have a young brood it is like the call of the common hen.

The reproduction of this species has never been known to occur in the western parts of Europe, either in a wild state or in confinement, but it breeds on the banks of the Wolga, the rivers of the Ural mountains, and in the interior of Asia.

Very early in the spring the birds are paired, and when

flying about the female invariably leads the way, being closely followed by the male.

The nests are placed in the holes and fissures of the rocky banks of the rivers, in the forsaken holes of foxes and other quadrupeds, in hollow trees or burrows of their own contrivance. The construction of the nest is a loose fabric of all sorts of stalks and sticks, and is lined with the down supplied from the female's own feathering.

The eggs are from eight to ten in number, and white in colour, very highly polished, and resemble those of the shieldrake very much in shape and size. As soon as the young are hatched and dry, the parent carries them one by one in her beak to the water's edge, where she watches over them to the endangering of her own life.

The flavour of the birds and eggs is so extremely fishy, that few persons can endure them; the eggs in particular are said to be a great deal worse than the eggs of the sea-gull. The Tartars insist upon their being poisonous.

The entire length of the male bird is two feet three to four inches; the females somewhat less.

The plumage of the male bird is as follows: the head and neck are greyish-white; the top of the head and cheeks are tinged with rust-colour, the sides of the neck more rufous, which colour increases in intensity down to the base of the neck, where it is bounded by a black band with metallic green reflections, narrow in front and broader at the sides; the chest, or crop is copper-coloured; the breast, belly and vent, back, and all the upper parts rust-red, with exception of the tips of the long tertials, which are pale yellow; the lower part of the back, upper tail-coverts, and tail black, with reflections of green; lesser and middle wing-coverts white; the secondary quills green, with purple reflections; quills black; the legs are reddish-grey;

the eyes are bright yellow; the eyelids white; the beak slate-colour; some of the back feathers are pencilled with undulating lines of slate colour.

The female has not any of the black ring around the neck, and her plumage is less bright. The young has the eye brownish-yellow.

PLATE CCXLIV.

SHIELDRAKE.

ANAS TADORNA.

The Shieldrake is indigenous in Great Britain, and found on many of its sandy shores, such as the coasts of Norfolk and Suffolk, of Northumberland, Dorsetshire, and Hampshire. It is also found on the shores of Scotland and Ireland in favourable situations, as well as on those of the Orkney and Shetland Isles. In most of these parts the Shieldrakes are permanent residents, but their numbers are augmented in the autumn to a great extent, by numerous migratory bands that arrive from the north to pass the winter with us. This species is more an inhabitant of the moderate climates than of the rigid; in Europe, it inhabits, during the summer months, the shores of the southern half of Sweden, but is rarely found in Norway. In the southern parts of Asiatic Russia this species is plentiful, particularly on the borders of the Black, the Caspian, and other seas; it is also found eastward from thence, as far as Kamtschatka; and retires in winter to Persia, Tartary, China, and Japan. From the mouth of the Elbe it spreads over the entire western coast of Germany, Holland, and France; and during the winter

months, it visits the coast of Spain, and the borders of the Mediterranean.

The flat sandy shores of the sea seem to be the localities preferred by the Shieldrake throughout the year; it is also found on extensive muddy shallows that are alternately covered during high water, and exposed by the receding waves, and bounded by sandy downs and swampy meadows, where nothing grows taller than weeds or rushes; and where there is consequently little call for the presence of mankind.

The Shieldrake is undoubtedly one of the handsomest of the duck tribe, particularly where a number of them are seen congregated together; its plumage is very peculiarly defined and brightly coloured; it runs on the ground with more ease and in a less ungainly manner than our tame duck; its position when on the ground being generally that which we have given in our plate; and the habit of carrying its neck in an elegant sweep, contributes also to its handsome appearance.

The flight of the Shieldrake is strong and quick, and performed in a straight line without evolutions of any kind. Although nothing can be said against the swimming faculties of the Shieldrake, it is an established fact that this bird passes much more of its time on land than on the liquid element.

The food of the Shieldrake, which it is all day in search of, consists of small fish and their spawn, worms, small crustacea, and marine vegetable productions; to which are added the seeds of grasses, and corn when it can easily be obtained. In confinement this species greedily consumes corn, and vegetables of all kinds, and apparently thrives very well upon them.

The breeding-places chosen by this bird are the sandy downs that gird the sea-coast, particularly where rabbits

abound; and in such localities it either searches for some deserted burrow, or scratches a hole in the sand for placing its nest in; some writers have stated that the Shieldrake not only drives rabbits, but also foxes from their holes, in order to obtain possession of a ready made burrow, in preference to the labour of making one for itself. Whether this extraordinary assertion may be relied on or not, it is very certain that this duck puts up with many an inconvenience in order to be excused the trouble of burrowing, and this has induced persons who reside near the breeding localities of these birds to make artificial burrows, to induce them to lay their eggs in, and thus the eggs are obtained day after day as soon as they are laid. These artificial burrows are made a couple of feet deep, by seven or eight inches wide, and branch out in eight or ten directions with a hole of twelve inches in diameter at the extreme end of each; the holes or nesting-places are covered over with turf, thus enabling the proprietor to lift the covering daily off, and to take his prizes.

The flesh of the Shieldrake is coarse and unfit for food, but the eggs may be used like those of other ducks.

The eggs vary in number from seven to fourteen, and are in form and colour as represented in our plate.

After about six-and-twenty days the young ducks come forth, and leave the nest as soon as they are dry, following the mother to the water, where they chiefly reside until fully fledged: when danger approaches they immediately conceal themselves, and the parents fly away, leaving the young to take care of themselves.

The Shieldrake measures nearly two feet in length; the beak is two inches from the forehead to the tip; the tarsus one inch eleven lines; the wing, from the carpus to the tip, twelve inches and a quarter.

The plumage of the adult male is as follows:—The head and upper part of the neck black, with a gloss of green; the lower part of the neck, the back, wing-coverts, flanks, rump, and basal part of the tail-feathers pure white; across the breast is a broad band of orange-brown, which extends around and meets on the back at the root of the neck. The scapulars and tips of the tail-feathers are black, as also the outer edges of the long tertials; the specimen is glossed with green; the edges of three or four of the secondaries are chestnut; the vent gamboge-yellow; a dusky black line runs from the breast to the vent, extending somewhat in width as it reaches the thighs; the eyes are dark brown, the beak, which has a knob on its upper surface near the forehead, is crimson; the legs and feet flesh-coloured.

The adult female resembles the male in most respects, but is without the knob on the beak, and the orange-brown band below the neck is not so broad.

The young bird differs very considerably from the adult; its beak is Indian red, the legs and feet grey, shaded with reddish-horn colour; the forehead, space between the beak and eyes, chin, throat, and all the under parts white, the thighs and flanks tinged with wood-brown, and with cinereous centres to the feathers; the eyes surrounded with white; the upper part of the head, the cheeks, nape, and back part of the neck dusky; the upper part of the back wood-brown, the larger feathers edged and tipped with white; the tertials the same, the edges of the secondaries above the green speculum are chestnut, with white tips; the wing-coverts white, with pearl-grey edges; the quill-feathers black, as also the tips of the four middle tail-feathers.

The egg figured 244 is that of the Shieldrake.

PLATE CCXLV.

SHOVELLER.

ANAS CLYPEATA.

The Shoveller is indigenous in Great Britain, but not a very numerous species, and is usually seen only in families or pairs; it has by some ornithologists been considered a winter visitant only in this country.

The geographical distribution of this bird extends over Europe, Asia, and America; it does not inhabit Iceland, as it is rather a tender species, but passes the summer months in the south of Norway and Sweden, in the warmer parts of Asiatic Russia, and the lower provinces of Canada and the United States; and inhabits throughout the year, Britain, Holland, Prussia, Poland, and Denmark. On the approach of winter, many migrate to the south of Europe; in Asia they extend as far as Japan and the East Indies, and in America as far as Mexico.

In the beginning of October, this species departs for the south, and in March and April it returns again to its breeding-places.

The chief locality frequented by the Shoveller, is wet boggy ground, or the soft muddy shores of inland lakes, rivers,

and ponds, and fenny districts, and very rarely the sea-coast Uncultivated boggy wastes, whether surrounded by trees, or bushes, or entirely open, where the ground is intersected by ponds and ditches, and the water well covered and supplied with weeds and rushes, it is very partial to ; it seldom swims about of its own accord in open streams, rivers, or lakes, and if danger induces it to escape by doing so, it very soon regains the shore again on the first opportunity to recommence its search for food. The day is generally passed by this species about the more extensive waters, and towards the dusk of the evening, like most other ducks, it wanders about in search of the smaller, and remains there throughout the night until the dawn of morning.

The food of the Shoveller consists in small worms, aquatic insects, fish and frog spawn, tadpoles and small frogs, freshwater snails, and the tender shoots of aquatic plants, grasses, buds, and seeds of rushes and sometimes grain; small stones are at all times found in its stomach. The Shoveller is very frequently seen to swim about the divers waterplants that lie on the surface of the water in all directions, opening and shutting its beak with incredible quickness, in order to catch its food from among the weeds, letting the water out through the laminæ of its beautifully adapted beak. Where the bottom is within reach of the bird's neck, the Shoveller often swims head downwards, but it does not dive for food at any time.

In confinement, the food of this species consists greatly in barley, oats, and bread, but unless it has a pond with duckweed at its disposal, it does not thrive.

The Shoveller is very easily distinguished from other ducks by its broad spoon-shaped beak, and its plumage is so very distinct and peculiar that it cannot be mistaken for any other species. In its nature this bird is not very shy, and when

on the wing it might almost be called careless, inasmuch as it does not avoid trees, bushes, or even walls and human habitations, but continues its course without deviation. We can speak from experience on this subject, having fired twice at one of this species when at a long distance, and still it flew straight towards a sportsman within sight, and became finally his prey; its flight is buoyant and well sustained, but it is not quick; its walk is tolerably easy, but not much put in practice, as swimming is more in accordance with its nature and habits.

The Shoveller breeds on the borders of rivers and lakes, or the central parts of marshes; the nest is placed among the grasses and weeds like that of other ducks; the eggs are generally from seven to ten or twelve in number, which are hatched in three weeks; the young leave the nest as soon as they are dry, and follow the parent bird on the water.

The measurements of the Shoveller, taken from an adult male are as follows:—entire length twenty inches, the beak, two inches eight lines; the tarsus one inch five lines; the wing, from the carpus to the tip, nine inches.

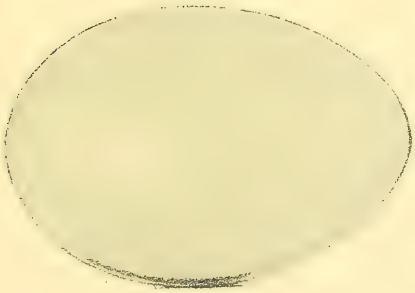
The adult male is feathered as follows, the head and upper part of the neck are black with green and purple reflections; the lower part of the neck, breast, and scapulars are white; the belly, vent, and flanks brownish red; the back and primaries dusky brown; the lesser wing-coverts are pale cobalt blue; the greater wing-coverts are tipped with white, forming thereby a white bar across the wing; the speculum is very rich, bright green; the rump and the upper and under tail-coverts are brown, glossed with dark blackish bronze; the sides of the rump are white, the tail is dusky brown, edged with white, the outer feather entirely white; the beak is black, the legs yellowish orange, darkest on the webs; the eyes yellow.

The female differs very much from the male, having the head pale reddish brown with dusky shaft streaks, all the upper parts are dusky brown, with rufous white edgings to the feathers; the under parts are rufous, with dusky brown spots; the lesser wing-coverts tinged with pale cobalt blue; the speculum green.

The egg figured 245 is that of the Shoveller.

244.

245.



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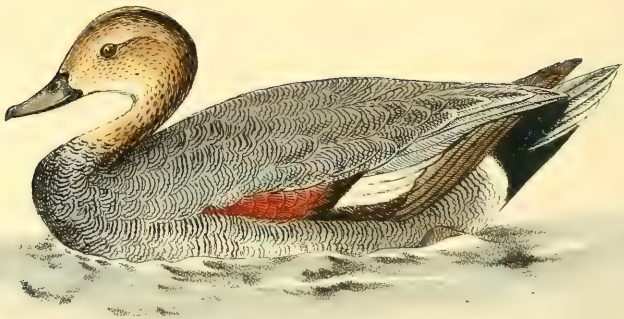


PLATE CCXLVI.

GADWALL.

ANAS STREPERA.

The Gadwall is an occasional winter visitant with us, but not of frequent occurrence, and chiefly seen during its autumnal and spring migrations. Its numbers are principally distributed over the northern parts of Europe, Asia, and America. In Iceland, Norway, Sweden, and Denmark it is rare, but in Holland, and the eastern parts of Germany, numerous. Like the foregoing species, it is more an inhabitant of inland waters, than of the sea-coast, and in consequence of its preferring temperate climates to cold, it leaves, in September and October, its summer habitations for more southern countries, such as the south of France, Spain, and the borders of the Mediterranean, and crosses also over to Africa ; in China and Japan it is every year to be met with. By the months of March and April it is on its return northward again, and at that time it may be frequently seen to travel in pretty large numbers. On account of the principal migrations taking place during the night, this species is more frequently heard than seen, and they also fly very high.

The localities preferred by the Gadwall are inland lakes and rivers, large boggy flats, and large ponds that are well-covered with reeds, osiers, and long herbage.

The plumage after the summer moult is rather lighter about the head; the entire plumage brown, with dusky centres to the feathers; the under tail-coverts and vent white; the wing-coverts cinereous brown; the speculum dirty white; the quills dusky, lightest at the basal part of the feathers; the beak dusky, with orange about the base; legs and feet are less bright than in the spring.

The female has the head more dusky; the breast and sides brown, with dusky spots on the feathers; the throat is white; the back is dusky, with plainly defined rusty yellow borders to the feathers; about the flanks the dusky centres of the feathers become smaller and smaller, and give finally place to entire white. The wing-coverts are brownish-ash colour; the speculum is dirty white.

The egg of the Gadwall is figured 241.

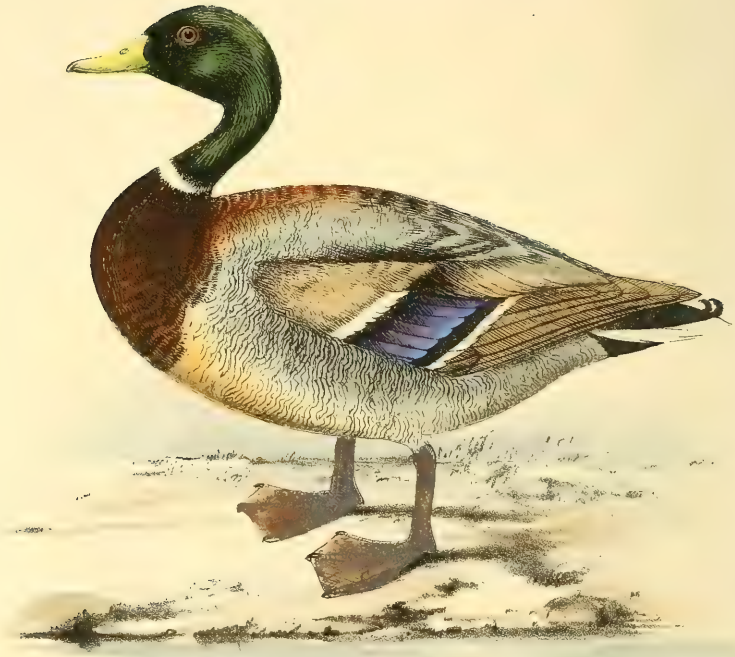


PLATE CCXLVII.

MALLARD, OR WILD DUCK.

ANAS BOSCHAS.

The Mallard or Wild Duck is a well-known British bird, indigenous in many parts of the country, but receiving a vast accession to its numbers on the approach of winter, at which season they are driven southward by the inclemency of the weather, from those more northern countries in which their numbers are chiefly multiplied.

In consequence of the increase of cultivation in Great Britain, the numbers of this species that remain to breed, are very much reduced, and the profit arising from the decoys in which they were formerly taken in great abundance, must necessarily be much diminished.

The geographical distribution of the present species is far and wide, beginning at the polar circle, and extending over all countries, to the equator, and its numbers are more abundant than those of any other duck. In the most northern countries the Mallard is a migratory species, in the temperate climes indigenous, and in the southern a winter visitant. Many remain in our latitudes to breed, and only leave the spots they inhabit, when the frost closes the waters

partially, and even then, some numbers remain about springy places where the water is still unaffected by the frost.

The time of migration from the north begins in October and continues throughout November; during this time the flocks that pass over are immense, both with respect to number and extent; these migrations are chiefly performed during the night, but at times when circumstances hurry them on, they continue the same during the day. The manner in which they fly is in the form of a slanting line, as if broken in its centre. When the journeys are to short distances, they are performed in small parties, following the course of the water or of low wet grounds, and they sometimes fly in a confused mass low over the ground. In the morning early, and late in the evening during the winter months, the numerous flocks that remain about a favourite part of the country, namely wet and low meadows that are frequently inundated, afford great sport to persons that lie in wait for them, and although it requires much perseverance, very warm clothing, water-tight boots or shoes, and patience, it is not only amusing, but interesting to watch the approach of those birds in the dark; first of all one hears the noise of the wings at a considerable distance, next comes the cackling as they approach nearer in the gloomy twilight, and then the sudden appearance and as sudden disappearance of the flock as they rapidly pass over the sportsman. In order to enjoy this the sportsman must place himself close to the water-side when it begins to get dusk in the evening, near the stem of some tree or bush, or he must sit down on the ground with his gun ready for action, as there is no time to lose in cocking the gun or taking it up. When these ducks are fairly on the wing, the number of small parties, of couples and single birds that sweep over his head, and in all directions, is incredible to persons who have never pursued this pastime; this fact is

every morning and evening of the present season to be witnessed, we speak of January, 1849. We never have seen so many water-fowl about us as there are at the present time, during all the years we have studied the subject of Ornithology.

Many are the methods in which the Mallard is taken for the table, its flesh being relished by all nations; we shall enumerate a few ways that are practised, for the amusement of persons who may not have an opportunity of witnessing them.

The greatest number of ducks of all descriptions are taken in decoys, or low grounds in the vicinity of lakes and inlets of the sea, where the grassy ground is, during the greater part of the year, covered by water; a sandy flat enclosed by an embankment or paling, has a large pond in its centre of a hundred or a hundred and fifty yards wide, and four or five ditches or canals are connected with it; the ends of these are all directed to one and the same spot in the form of a horn or half-moon, and each of them is enclosed by osiers, rushes, alder, and ash trees, so as to form an avenue that becomes narrower as it approaches its termination; among these bushes the sportsman's hut is concealed, as also the warehouse of the poor captives; in three or four distances along these avenues are screens made of rushes that come close up to the water for the use of the bird-catcher. The narrower parts of the avenues are covered over with net-work that end in a funnel of the same material. On the pond several call-birds, or trained Wild Ducks, of divers species, are allowed to swim about, to which the flocks that come about are induced to settle, and when the strangers are fairly swimming on the pond, the decoyer calls his trained ducks by a whistle, either imitating a duck or golden Plover, and throws some food over one of the screens of rushes, that is nearest the pond, then

he does the same at the next screen and so on, until the party enters the funnel, when a trained spaniel shews himself, and on a sudden the man appears also; this induces the ducks to go head-foremost to their destruction, and a trap-door of net-work being quickly raised prevents any from escaping. The decoyman then opens the end of the funnel, and takes one after the other out, and wrings its neck; as soon as the strangers are thus disposed of, the decoy-duck returns to the pond in pursuit of his vocation.

Another manner is also adopted by means of clap-nets, such as our common bird-catchers use for catching linnets, goldfinches, &c.; with this difference, namely, that the nets are spread open about six inches under water instead of being on dry ground: the ground is some very even grass kept clean for the purpose, and covered with water when required, by means of reservoirs or other contrivances; the call-birds are harnessed and pegged to the spot, allowing them a couple of feet range in swimming. The nets are of much larger dimensions than those used for small birds, and the materials much stronger; the line that draws the nets over the ducks as soon as they are swimming in the right spot, requiring a considerable strength, is managed by means of a machine made of wood; this method is a very successful one, and much practised in Holland and Germany. Flews, like those that are used for taking fish in ponds and rivers, are also set up over the surface of the water, and along its banks, into which, ducks entering entangle themselves.

In India and other Eastern countries a very amusing way of taking ducks is practised by the natives, who cover their heads with a calabash, or pumpkin, and thus wade up to their necks in the water, and carefully mix among the ducks that swim on the surface; they then quietly

draw their victims by the legs under water, and fasten them to a girdle that is attached around their own bodies.

Under all these circumstances it is necessary for the sportsman to keep himself opposite the wind and perfectly quiet, as ducks are possessed of a sharp scent and quick powers of hearing; the sight of ducks is, however, not acute, particularly in the dark; the Mallard is besides a very shy bird, and at all times watchful and suspicious.

The food of the Mallard consists in aquatic insects, vegetable matter and grain, worms, slugs, &c.

The nest of the Wild Duck is generally placed on some dry spot near the water, but invariably under shelter, and concealed by thick bushes or long herbage; several instances are recorded of the nest and eggs being found in a deserted nest of some land bird, and we can add the following occurrence to the list of unusual places chosen by this species, where one would hardly expect to meet with it. The following is taken from our note-book, viz.

"On the 2nd of March, 1842, we were walking on the skirts of the water-pit in Stoney field, Shepperton, Middlesex, when one of the party threw a stone into the water, on which there arose from among the brushwood, with which the place is filled, a beautiful Wild Duck; it rose within ten yards of us, so that we could plainly distinguish it to be a Mallard. It flew several times round and round the field as if desirous to settle again in the same spot, but was deterred by our presence; it then flew off about half a mile and again returned, and passed over our heads, but as we stood in an unsheltered place and were unable to conceal ourselves, it again flew off towards the Thames, and apparently settled on one of the small islands in it. A day or two after we were told that a duck and drake had been seen in the same place again, by which we sus-

pected, as the weather was open and fine, and warm for the time of the year, that this pair had remained so unusually late for the purpose of breeding. This proved to be the case, for on the 8th, as we were again walking about the same place, we discovered an egg, undoubtedly of this species; it was deposited in the slightly hollowed platform of a willow stump, close to the stem of an oak; the egg was laid upon the green moss with which the stump was covered, with the addition only of half-a-dozen dead grasses: the platform was about six feet and a half above the water. The egg must have been laid since the morning, as we had passed the place before, when it was not there. We took the egg, which measured two inches four lines, by one inch five lines, and weighed nearly two ounces: we placed it under a tame duck on the 23rd of March, and it was hatched on the 21st of April. The young duck refused food and lived only two days; it was much smaller than its foster brethren, of a more lively appearance, and differed from them considerably in colour, being much darker in its downy plumage, the colours of which were dusky and gallstone yellow; its beak and legs were lead coloured."

The eggs of the Wild Duck are from ten to fourteen in number; and when the female leaves the nest, during the time of incubation, she usually covers them with down and grasses so as to hide them from view.

The measurements of the Mallard are twenty-four inches from the tip of the beak to the extremity of the tail; the beak two inches and a quarter, from the forehead; the tarsus one inch eleven lines; middle toe two inches five lines; the wing, from the carpus to the tip, ten inches nine lines.

The plumage of the adult male is as follows:—The head and neck rich metallic green, the lower part surrounded

by a white ring; the breast deep chestnut; the belly and vent greyish-white, tinged with ochre-yellow, and transversely barred with zigzag lines of dusky grey; the upper part of the back chestnut with paler edges to the feathers; the scapulars pearl coloured, and pencilled with zigzag lines of brown; those next to the wing rich brown, pencilled with black. The lower part of the back, rump, and upper and under tail-coverts black, but reflected with green; four middle tail-feathers black and curled up, the others dusky with white edges; lesser wing-coverts dusky brown, tinged with yellow; the greater coverts have a bar of white, and are tipped with black; the speculum metallic prussian-blue, shaded into black and tipped with white; quill-feathers dusky-brown; the beak wax-yellow, tinged with sap-green; legs and toes orange; the eyes dusky brown.

The female differs very materially from the male, and is as follows:—The ground colour of the plumage, with a few exceptions, is cream-yellow, the head streaked with dusky brown, darkest on the crown; the chin without spots; the feathers of the upper parts all dusky-brown in their centres, the cream-yellow forming their borders; the lesser wing-coverts dusky-brown, tinged with grey; speculum as in the male, but not so deep in colour, their tips also white; the under parts streaked and spotted with dusky-brown; quills and legs as in the male; the beak greenish ash.

The young males resemble the female, till after the first moult.

The egg figured 247 is that of the Wild Duck.

PLATE CCXLVIII.

PINTAIL.

ANAS ACUTA.

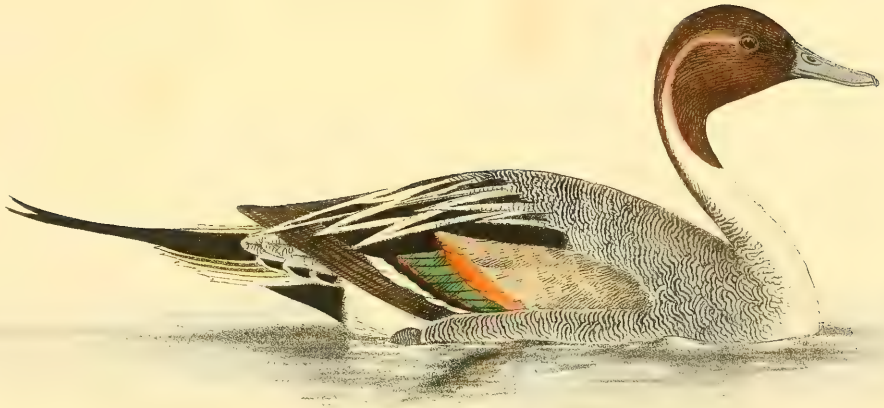
QUERQUEDULA ACUTA.

The Pintail Duck is a winter visitant in Great Britain, and more or less numerous according to the state of the weather during that time of the year.

Its geographical distribution extends over most of the northern countries of Europe, Asia, and America. On the continent of Europe it is more plentiful than with us, but nowhere numerous, being computed to be in proportion to the mallard, only as one to fifty or sixty.

As this species breeds principally in the northern parts of Siberia, Iceland, Hudson's Bay, Canada, and other suitable parts about the polar circle, it migrates southward on the approach of winter, and thus becomes a resident in Holland, France, and Germany, frequently extending as far south as Italy and the northern coast of Africa. In Asia it descends to Persia, Tartary, China, and Japan, and in America, to the United States and Mexico.

The autumnal migration takes place in October and



November, and the return, or spring migration, in March and April, depending on an early or late spring; some few remain to breed on the European continent, but we have no account of their breeding in Britain, although many localities might induce them to do so.

The chosen locality of the Pintail is very much like that of the mallard, but it rarely approaches the cover of trees or osiers, preferring the reedy borders of lakes, ponds, and rivers.

During the day it feeds on extensive, green, muddy flats, or remains on the surface of the water at a proper and safe distance from the shore, and at night it comes to the borders of the before-mentioned waters. On the sea-coast the present species is only found during the time of migration in places where some quiet inlet or bay affords the required muddy nooks during low-water, and under such circumstances it is only seen in companies consisting of thousands of other birds of the duck tribe.

The food of the Pintail consists in insects, such as worms, beetles, snails, the spawn of frogs and fish; also vegetable matter, such as blades of grass, seeds, and the roots of water-plants, and corn, to obtain which it flies to corn and stubble fields. Small fish and frogs it only consumes for want of better provender, but not by choice.

In confinement the Pintail must be fed in the same way as the mallard; oats it prefers greatly to barley.

The general appearance of the Pintail is by far more elegant than that of any other duck, in consequence of its more slender shape; its lengthened tail-feathers contribute also to its beauty, and its long and slender neck frequently resembles in its motions that of the swan; its flight, walk, and swimming capacities are like those of the mallard, but it has a very remarkable propensity to swim low in the water, with its neck

stretched out at full length along its surface, in order most probably to be less seen by an enemy from the land; when winged, it mostly performs this feat. Its flight is quicker than that of the mallard, probably owing to its more slender shape.

The best manner for a sportsman to approach the Pintail is by means of a boat among the rushes, and a good water-spaniel. Decoys are the best for the capture of all ducks, as before described.

The breeding localities of the Pintail are lakes, ponds, and seas, that are in some parts thickly overgrown with reeds and rushes. The birds are paired in April, and build their nest either on some matted rushes in the midst of the reeds, or on some other dry patch, and not unfrequently among the grass near a ditch, or among the standing corn; but invariably so well concealed that it is only by chance that it is found out.

The eggs are generally eight or nine in one nest, although ten have been found; the parent bird shews so much solicitude for her eggs that she will remain on the nest, on the approach of danger, to the last moment. After two or three and twenty days the young brood make their appearance, and follow the mother on the liquid element.

The adult male measures twenty-six inches; the beak two inches from the forehead; the tarsus one inch seven lines; the middle toe two inches four lines; the wing, from the carpus to the tip ten inches six lines. The head, chin, and throat are hair-brown, with a narrow band of rose-purple behind the ears; lower part of the neck, and a streak on each side reaching to the nape, white; the nape and hinder part of the neck dusky-brown; the breast and belly white. The flanks and thighs transversely lined with black on a white ground; the vent and under tail-coverts deep black; the back is greyish-white, pencilled with black; scapulars black;

the tertials are deep black, margined either with pearl-grey or yellow; lesser wing-coverts bistre colour; the larger coverts are tipped with brown-ochre; the speculum bronze-green with white tips. Quill-feathers dusky-brown; the two long tail-feathers are black, the others dusky-brown, edged with white; the beak dark slate-grey; the legs and feet slate colour; the eyes are gold-yellow.

The plumage of the female is as follows:—The forehead and crown of the head are pale chestnut, with streaks of black; the cheeks and neck pale yellow-ochre, speckled with black; the chin and throat cream colour; the sides of the breast dusky-brown, barred and tipped with white; the tippet and scapulars yellowish brown, streaked and spotted with reddish yellow and white; the tertials are dusky-brown, margined with white; the wing-coverts are purplish-brown, the feathers edged and tipped with white; the speculum brownish bronze-green, with white tips. Quills dusky-brown; the tail-feathers hair-brown, indistinctly barred with white and pale brown ochre; the two middle feathers about half an inch longer than the rest; the belly and vent cream-yellow, irregularly spotted with brown; under tail-coverts white, with chestnut-brown spots. Beak slate colour; legs and feet grey, with a tinge of brown.

The egg figured 248 is that of the Pintail Duck.

PLATE CCXLIX.

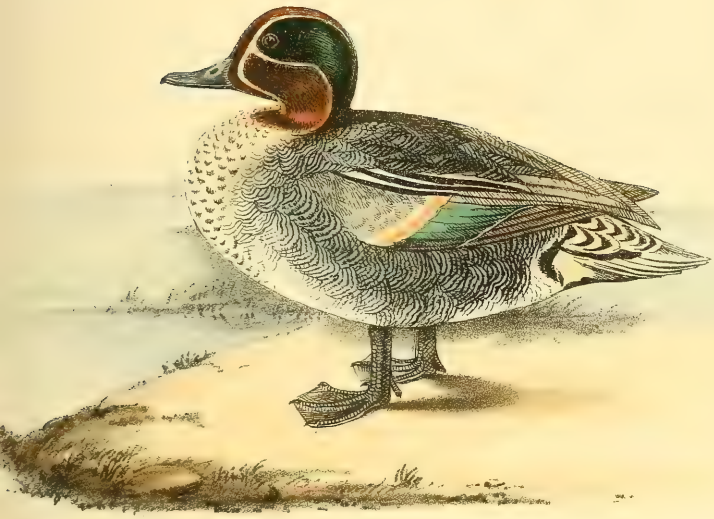
TEAL.

QUERQUEDULA CRECCA.

The Teal is indigenous in Great Britain, but its numbers are greatly increased also, during the winter, by migratory bands from more northern countries. Its numbers are very considerable, and only second in this respect to the mallard.

Its geographical distribution extends over most parts of Europe and Asia, from Iceland, Norway, Sweden, and Russia, where it passes the summer months, to Spain, Italy, and Turkey, and even Egypt. In Denmark, Great Britain, and Holland its numbers are very great: in Asia it ranges from Kamtschatka to Japan, China, the East Indies, Persia, and Arabia.

The Teal is a very hardy bird, but it invariably migrates southward to pass the winter in tolerably mild countries, and its migration commences generally in September, and continues through October and November. In the middle of March, it begins its returning movements to its breeding localities in small or large companies, rarely singly or in pairs, and its chief migrations take place during the night, although many flocks are seen in the day-time, flying either in a line or a triangle, and at a very great elevation.



The localities principally frequented by the Teal are lakes, large ponds, or rivers, where flags and rushes abound ; swampy meadows, small streams, ditches in low grassy meadows, and pools of water occasioned by rain or inundations, provided the ground is well covered with verdure ; these all afford the Teal a resting-place, feeding-grounds or shelter. Whether the country is entirely open, or partly covered with trees is immaterial to the present species, as it is found equally in both.

The Teal is not very shy compared with others of its family, and consequently frequently obtained by sportsmen who search for ducks, either early in the morning, or in the evening ; this bird is also frequently met with in ditches that are full of long grasses and decayed rushes, but without a spaniel-dog it cannot easily be found, in consequence of the great care it takes, beyond most other birds, in winding among the grasses, without running against them ; thus it avoids discovering its course to its pursuer by their vibration : this feat it performs with its head and neck carried horizontally, and yet it proceeds with great velocity. Not long ago, while we were waiting for ducks in the evening, a flock of about thirty Teal came sweeping close over our heads, and after skimming several times round us, they settled on the surface of a pool, and the gambols they performed while there, were exceedingly amusing, but not a note was uttered until they took to flight again. On taking wing from the water, they all rose instantaneously without giving previous notice as other ducks do, by drawing together and making long necks on the approach of danger. When Teals are put up at night they only skim round, and soon settle again, frequently in the same place ; but when put up early in the morning, they rise immediately to a great height, and fly off.

The food of the Teal is much the same as that of the foregoing species, namely aquatic insects, and tender blades and shoots of vegetable matter, also duck-weed, and seeds of grasses; barley and oats it also consumes.

The breeding localities are swamps of all kinds, although instances are on record of the nest and eggs having been found in clefts of rocks and stony places; the nest is composed of a loose structure of grasses, and the eggs are from nine to fourteen in number; in colour and size as represented in our plate. Many pairs breed in Scotland, and some in divers parts of England, but the greater numbers are multiplied in Iceland, Lapland, Finland, and the north of Russia, and equally so in the northern countries of Asia and America; in Norway, Sweden, Prussia, and Poland great numbers also breed.

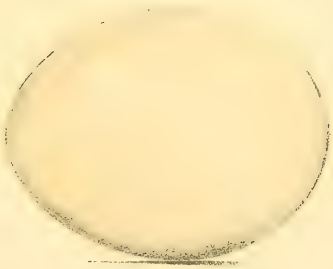
The male measures fourteen inches and a half; the beak one inch five lines; the tarsus, one inch two lines; the wing seven inches five lines.

The crown of the head, cheeks, sides, and front of the neck, very rich chestnut-brown; around the eyes, continuing as far as the nape, is a patch or band of glossy green, framed by a white line; the chin is black; the sides of the neck, back, scapulars, and flanks are rayed with zig-zag lines of black on a white ground; the wing-coverts are hair-brown, with a slight tinge of grey; those nearest to the secondaries have yellow tips, forming thus a bar across the wing; the speculum is green, with the feathers on each side black; the front of the neck and breast are cream-white, with dusky black spots, the belly and vent white; the under tail-coverts yellow, with a division of black, and bordered with black; the tail-feathers pale dusky-brown, edged with white; the beak is black, the legs gray, with brown joints and webs; the eyes brown.

The female has the head and neck yellow, with dusky-brown streaks; the throat and cheeks yellowish-white, spotted with dusky-brown, the upper parts are all dusky; the feathers broadly edged with yellowish-brown and white; the under parts cream-colour; the speculum like that of the male; the legs tinged with yellow.

The young of the year resemble the female, but their plumage is somewhat darker.

The egg figured 249 is that of the Teal.



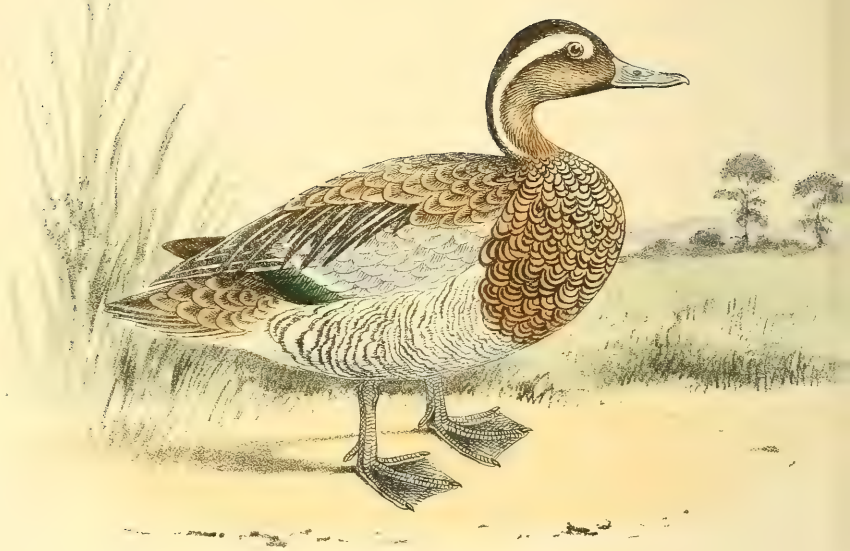


PLATE CCL.

GARGANY TEAL.

QUERQUEDULA CIRCIA.

The Gargany Teal is an occasional visitant in this country during its migratory journeys, but neither of frequent occurrence nor seen in great numbers, as its course does not lie in the direction of our geographical position.

The summer habitation of this species is to be found in the north-eastern countries of Europe, namely, the southern parts of Sweden and Russia; and in Asia as high north as Kamschatka; but during the inclement season of the year it extends over the entire continent of Europe, south of the before-mentioned countries; and in Asia it spreads over Persia, Arabia, India, and China.

The locality preferred by the Gargany Teal is low land, well intersected with water: the sea-coast seems only to be resorted to under peculiar circumstances; and even then, only the quiet and sheltered inlets are frequented, that afford large muddy fens, which become exposed during low-water.

The Gargany Teal being rather a tender bird, it does

not go far north, and draws towards the southern and warmer climates on the first appearance of cold and frost: its autumnal migrations are generally performed in October and November, and its vernal in March and April. According to Selby, it is during the spring migration that the Gargany Teal is most frequently met with in the eastern counties of Great Britain. Some writers have stated that it remains with us during the winter; but we have never met with it, and can hardly suppose this to be correct, owing to the tender nature of the bird. Some such circumstance may occur where a bird has been slightly wounded, or been obliged, from other causes, to remain against its inclination.

During the day, the present species conceals itself on the water among flags and weeds that abound on the borders of lakes and ponds, ditches and rivers; it may also sometimes be met with feeding in a low meadow or field. Its time for roosting is the middle of the day, and it takes its rest either on the water, or standing and squatting among the long grass in meadows. Towards the dusk of the evening, and mostly earlier than other ducks, it starts from its retreat, to the usual feeding-grounds, among which pools, occasioned by heavy rain or thawed snow, form a favourite resort; there the Gargany Teal busies itself throughout the night, until the approach of daylight reminds it that its safety becomes endangered.

The Gargany Teal is not conspicuous in the bright colouring of its plumage, but on near inspection it will be found to be one of the most beautifully marked of its family, and its general appearance is graceful: its capacities in the way of swimming and walking are equal in every respect to those of the foregoing species; its flight is exceedingly buoyant, sometimes very quick, and it is said

to be capable of evolutions that are peculiar to itself. These are, that the bird rolls occasionally over and over in the air, shewing to the beholder first its under, and then its upper parts. Its flight, when on its migratory journey, is performed in a straight progress; and when a small number or a family are together on the wing, they form a sort of line, but the individuals do not keep close together, like most other ducks. In consequence of its wings being small in proportion to its size, the noise produced by them is very trifling, and seldom heard.

The Gargany Teal is not very shy, and may therefore be easily approached within gunshot; when it is disturbed from its hiding-place, it very frequently settles again near the same spot, and, during its stay in any place, it is known frequently to approach very near the habitations of man, where a suitable piece of water invites it.

The call-note of this species resembles that of the mallard, but is of course uttered in a weaker tone of voice.

This bird soon becomes tame in confinement, and it is therefore remarkable that we do not see some of these beautiful creatures on the ornamental ponds of private individuals.

The food of the Gargany Teal consists in insects and their larvæ, small worms, small fry of fish, frogs, and spawn. It also feeds on vegetable matter of divers descriptions, such as the roots and shoots of aquatic plants, grasses and grain of most kinds, principally barley, oats, and millet.

The breeding localities of the present species are in every respect the same as those of the common wild duck; but the bird does not frequent such northern latitudes as before mentioned in the history of that species, and it does not,

consequently, start so early in the spring for the principal rendezvous, namely, the uncultivated countries northward. The adult birds arrive at their breeding-stations already in pairs, but the young ones have to make their choice and fight the usual battles on their arrival for their mates. Their migratory journeys are therefore either performed in pairs or in small parties, and invariably during the night.

About the latter end of April or beginning of May, the female begins to lay, and the brood generally consists of from nine to twelve, and sometimes extends to fourteen.

The eggs are in form and colour as represented in our plate. After three weeks' incubation, the young brood come forth, and follow the mother, as soon as they are dry, to the water, and are carefully led by her to the cover of the nearest weeds and rushes.

The Gargany Teal measures sixteen inches and a half in length, and weighs about fifteen ounces.

In the adult male the upper part of the head is dusky-brown, with darker streaks; over the eye is a white band, which passes down the sides of the neck; the cheeks and upper part of the neck are purplish brown, marked with fine white lines; the breast is marked with semicircular lines of brown and black; the chin is black; the belly dirty white, toward the vent are some dusky streaks; the sides are marked with numerous small undulating black lines; the wing-coverts are cinereous-grey, the larger wing-coverts are tipped with white; the scapulars are long and narrow, the upper ones striped with black, white, and ash colour, the rest cinereous-grey; the speculum is green, with a white edge below; the tail is dusky; the beak and legs are bluish-ash colour.

The female is brown on the upper parts, streaked

with dusky; the white streak over the eye is indistinct, and the green speculum is wanting, which distinguishes this from the female of the common teal: as the plumage is alike in other respects, this is worthy of notice.

The egg figured 250 is that of the Gargany Teal.

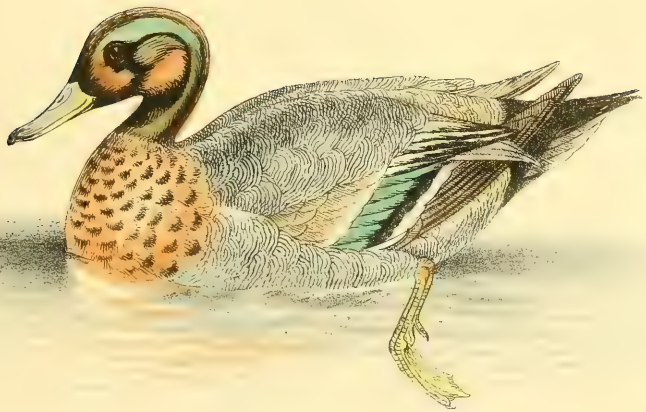
PLATE CCLI.

BIMACULATED DUCK.

QUERQUEDULA GLOCITANS.

The Bimaculated Duck is said, by ornithologists, to be a "very rare visitant in Great Britain;" rare indeed, one solitary individual having been taken in 1771, according to Pennant, and two others bought in Leadenhall Market in 1812, which were said to be taken in Essex: these latter are now preserved in the Museum of the Zoological Society, having been presented by Mr. Vigors. We figure this species in our work, not only as we are in duty bound to do, in consequence of its having been included in the list of British Birds by all British ornithologists of the present century, but principally for its own sake, and on account of its personal beauty.

It is to be regretted that no one had the spirit or love of science sufficient to preserve the tracheæ and other internal particulars of these specimens, from which more knowledge might have been derived; and we regret also that we are under the necessity of repeating the same story that is to be found in every book on the subject, and which is originally derived from Pallas, namely, that it is a native of Siberia, frequenting Lake Baikal, and the river Lena; nothing else being known respecting the habits, &c., &c., of this ornamental pair of



stuffed ducks. Temminck states, in the fourth volume of his "Manuel d'Ornithologie," that a species (*Anas formosa*), which is tolerably common in Siberia, China, and Japan, resembles our *glocitans* very much, and may prove hereafter to be the same species in a different state of plumage. This remark of Temminck may possibly lead to some investigation of the subject.

The measurements of this bird are twenty inches in length; the beak one inch ten lines from the forehead to the tip, two inches two lines from the gape; the wing, from the carpus to the tip, nine inches; the tarsus one inch four lines; middle toe one inch nine lines; outer toe one inch eight lines; inner toe one inch two lines in length.

The beak is lead colour; eyes said to be dusky; the legs and feet orange-yellow. The plumage on the forehead and top of the head is dusky, changing to brown and chestnut from above the eyes to the nape, and further down the back of the neck becoming deep blackish purple; from the forehead, surrounding the base of the beak, extends the same dusky colour, becoming lighter towards the eyes; around the eyes is a band of dark green, which runs round the ear-coverts in a circle to the front of the neck; on the lower part of the cheeks is a patch of bright chestnut brown; a beautiful duck-green band begins above the dark green just over the eye, and extends all along the sides of the neck. The entire upper part of the breast is rich orange-brown, spotted with crescent-shaped dusky spots, in the same manner as the common teal; the breast, belly, and vent are white, with fine pearl grey undulating pencilings; the back white, with the same markings, but rather stronger; the tertials elongated, and bordered with black, and tinged with straw-yellow; the wing cinereous-dusky; the speculum bright green, with a whitish band above, caused by the tips of the coverts being of

that colour, and below a band of black and white as represented in our Plate; the quills are dusky; the upper and under tail-coverts are black with green reflexions, including the two elongated middle tail-feathers; the rest of the tail dusky, with white tips.

The above is the description of the male bird from the specimen in the British Museum.

The plumage of the female we describe as follows:—Head and neck pale buff colour, with black spots and streaks; the spots on the crown of the head are darkest and largest; the chin and throat pale buff, without any markings; the lower part of the neck and sides of the breast pale yellowish brown, spotted with dusky; the flanks are variegated with dusky and yellowish brown; the upper parts are dusky, and each feather broadly edged with reddish white and pale yellowish brown; the lesser wing-coverts hair brown; the lower row tipped with pale reddish brown; the speculum green, with purple reflexions about the upper half; the lower half black, the feathers tipped with white; the quills and tail hair brown; the tail-feathers margined with rusty white; legs orange-yellow.

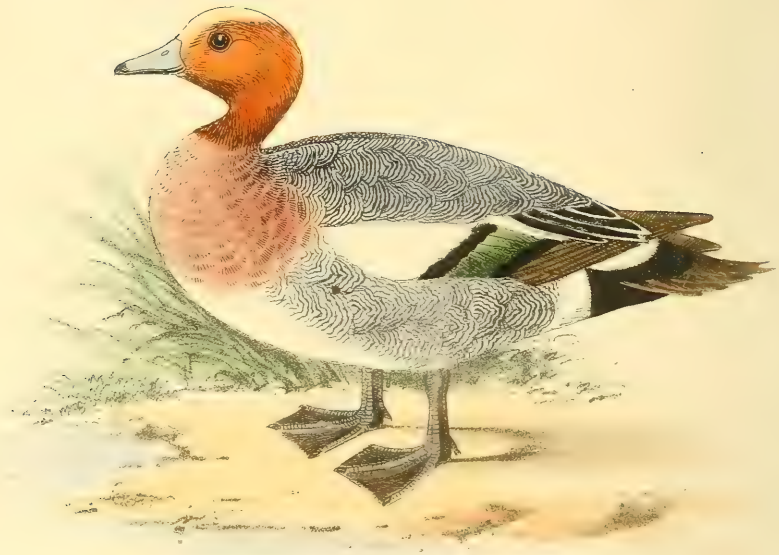


PLATE CCLII.

WIGEON.

MARECA PENELOPE.

The Wigeon is a regular winter visitant in Great Britain, at which season of the year it is distributed over every suitable locality, both on the sea-coast, and about the rivers and lakes, fens and ponds of our midland counties.

The geographical distribution of the Wigeon extends over the chief parts of Europe and Asia; the summer months are passed in Iceland, Scandinavia, Norway, Sweden, Finland, Poland, Prussia, Britain, Holland, and France, and in countries of the same temperature in Asia; but on the approach of winter it migrates southward, and spreads over the entire south of both these quarters of the globe, and does not unfrequently reach beyond them, namely, as far as Egypt.

It is said that some individuals remain to breed in this country, but the greater portion go further north for that purpose, and return with increased numbers in the autumn. These autumnal migrations generally begin late in September, or early in October, at which time small parties arrive from the north and north-east; and as the season advances, they collect together in considerable flocks, in order to journey in a body

further south. About the latter end of March the Wigeon makes its reappearance, and the spring migration continues throughout April.

These journeys are generally performed during the night, at which time the birds fly at no great elevation, and may easily be known by their continued whistling; when the journeys are continued during the day, the birds fly very high, and in the usual manner of ducks, following one another; but these birds fly so very close upon the heels of their leader that it forms a distinguishing peculiarity.

During the day the Wigeon frequents the low grassy and swampy borders of inland seas, lakes or rivers, but remains more frequently on the surface of the water at a proper and safe distance from the shore. In countries where the population is scanty, the Wigeon frequents the low muddy shores that are scantily covered with rushes and flags, or grassy bottoms that are partly swamped by high water or floods: this may account in some measure for their taking up their abode during the migratory seasons on the sea-shores that are low, flat, and swampy. During the floods in our immediate neighbourhood, occasioned by heavy falls of rain and swelling of the river Thames, we have very frequently seen parties or flocks of Wigeons swim about on the flooded meadows all day long, but at all times so far from the nearest point of land, that it required the greatest caution to steal upon them; which could only be done by lying flat in a punt, and in this manner drifting with the stream towards them, so as to get within gunshot. This species seems to know nothing about hiding itself, yet is ever careful to keep out of harm's way. The greatest numbers are taken in decoys, and the flavour of their flesh is considered very good on their first arrival from the north.

The food of the Wigeon consists chiefly in aquatic insects

and larvæ, worms, small mollusca, and rarely small fry of fish and frogs; frequently also it feeds on the tender shoots of vegetable matters that grow in their locality, their leaves, buds, and seeds: grain is no favourite food of the Wigeon. The chief feeding-times are morning and evening, and throughout the night. In confinement the present species becomes soon tame and accustomed to the food of other ducks; under which circumstances it also eats barley.

The localities chosen by the Wigeon for the purposes of breeding are on or near some extensive lake or river that affords a wide extent of water; and on the border of such rivers the spot chosen is either under the shelter of some herbage, bush, or heap of stones; it conceals its nest very cleverly, which makes it a very difficult matter to find it. The female constructs the nest with the materials at hand, namely, flags, grasses, stalks, and leaves; and manages the plaiting in such a manner that the structure forms a cup of considerable depth in its centre for the reception of the eggs; these are from ten to twelve in number, and the brood is hatched in twenty-four or twenty-five days; these follow the parent on the water as soon as they are dry.

The entire length of the Wigeon is twenty inches; beak from the forehead to the tip, one inch and a half; the tarsus one inch six lines; the wing from the tarsus to the tip, ten inches and a quarter.

The plumage of the adult male in spring, autumn, and winter, is as follows:—the colour of the beak and legs is bluish-ash; the tip of the beak and the nail are black; webs and claws of the feet also black; the eyes are dusky-brown; from the forehead extends over the entire top of the head a band of straw-yellow, forming a sort of crest; the head and neck are chestnut; the front and sides of the upper part of the breast are Indian-red, palest in front, and darkest on the

sides; this red is irregularly continued, reaching as far as the speculum, when the wings are closed. The lower part of the breast, belly, and vent are white, the flanks rayed with grey; upper and under tail-coverts black. The entire back, from the neck to the upper tail-coverts, rayed with grey on a white ground. The tertials are black, edged with white; the wing-coverts white; the speculum is green, with a broad border of black above and below; the quill-feathers dusky; the tail lighter dusky, and tinged with grey

The adult in summer differs very much from what we ever meet with here, and must be described thus:—the beak, legs, and eyes, the same as before stated. The head and neck spotted all over with black; the breast and sides of the body reddish-brown, with darker bars and lines; the back and scapulars mottled and varied with feathers of reddish-brown and dusky marked in large bars, and others with fine black and white undulating lines; under tail-coverts white, with reddish-brown bars.

The female is like the common duck, of a sooty-brown, spotted with dusky-black; but at all times to be known by the blue beak and legs, set off with black like the male.

The egg figured 252 is that of the Wigeon.

250.

252

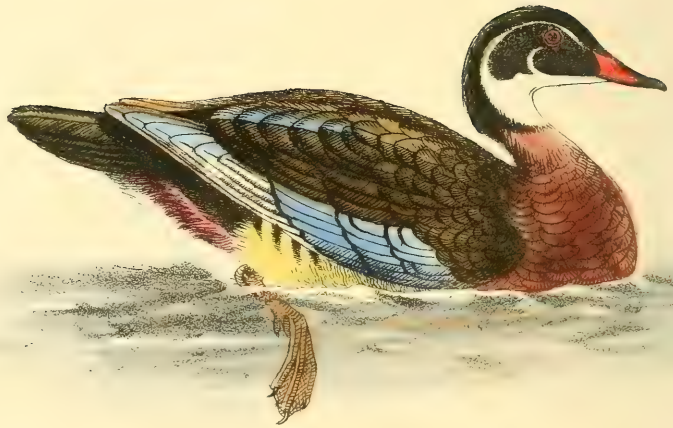


PLATE CCLIII.

SUMMER DUCK.

DENDRONESSA SPONSA.

Two specimens of the Summer Duck having been obtained, in an apparently wild state, near Dorking in Surrey, some few years ago, this species has been added to the list of British Birds by some few ornithologists; but whether it can lay claim to its place in the British Fauna is questionable, and must remain so until more frequent occurrences of the species substantiate its right.

The American continent is the natural abode of the present species, where it is known by the name of Wood Duck.

The particulars at present known respecting the Summer Duck, are very limited, but not uninteresting, in consequence of its habits differing in some respects from those of other ducks, namely, in its placing its nest invariably in trees; a hole in a tree by the water side, a cavity formed by decay or accident, or the hollow crown of a pollard, are particularly chosen for the purpose.

The number of eggs varies generally from ten to four-

teen, and they are in size, shape, and colour, as represented in our Plate.

The food of the present species consists in seeds and insects.

This is a very ornamental species, and may very easily be kept in confinement, or half-domesticated, provided a suitable locality is given it; such as a rivulet that runs through a well-wooded pleasure-ground or plantation.

The entire length of the Summer Duck is twenty-one inches; the beak measures one inch four lines and a half from the forehead to the tip; the tarsus one inch six lines; the middle toe and claw two inches; the wing nine inches.

The plumage of the adult male is as follows:—The top of the head, and space between the eye and the beak, are glossy dark green; the cheeks, and a large patch on the sides of the throat, purple with blue reflections; the crest on the top of the head is green and lake reflected. The chin and throat are white, which colour extends in a line to behind the eye, and another line of the same passes behind the ear-coverts and extends over the eye to the beak; the sides of the neck are purplish red, changing on the front of the neck and sides of the breast to a deep maroon colour, studded with triangular white spots; the back, scapulars, lesser wing-coverts, and tail-feathers, are a metallic display of black, green, lake, and blue; the lower part of the back, rump, and upper tail-coverts are blackish green and purple. On the sides of the rump are pendant hair-like tufts of reddish purple; the under tail-coverts are brown; the lower part of the breast and vent are white; the flanks are rich yellow, finely pencilled with black; the quill-feathers are silver grey, with much white on the outer webs, and some of the shorter ones tipped with blue; the beak is red, framed

with black, which colour extends over the nostrils; the legs and feet are orange yellow, with dusky webs; the eyes orange.

The female has only a small crest on the top of her head, and the colouring of that part is deep purple; behind the eyes is a white band; the chin and front of the throat are white; the head and neck are yellowish brown; the breast dusky brown, with triangular white spots; the back and scapulars are chestnut brown with bronzed reflections; the female has not any of the pendant feathers on the sides of the posterior parts; the beak is brown, the legs olivaceous grey; the eyes hazel.

The egg figured ♀253 is that of the Summer Duck.

PLATE CCLIV.

BLACK SCOTER.

OIDEMIA NIGRA.

The Black Scoter is a winter visitant in Great Britain, and principally found on our rocky shores; its geographical distribution extends over the northern parts of Europe, Asia, and America; it passes the summer months in high northern latitudes, where it breeds, and migrates southward, to evade the inclement season of the north, as far as the United States in America, the central parts of Siberia in Asia, and in Europe, to our shores, as well as those of the Baltic, Holland and France.

The numbers that visit the before-named European shores are so great, particularly during a continuous north-west wind, that they appear in clouds, and cover the surface of the water, literally, to a great extent.

The adult males leave the breeding places about the end of July; the young birds migrate in August, and the greater

Pl. 854.

numbers of intermediate ages, and the females, follow soon after; thus the larger flights arrive in September and October. By the latter end of March and the beginning of April, the northern migration takes place. The Black Scoter is so exclusively partial to the sea, that it chooses lakes, ponds and bogs, in the immediate vicinity, for the purposes of breeding, and returns again to the sea as soon as its young ones are ready to swim after it.

The food of this bird consists in crustacea, bivalves, mollusca, and other marine animals and insects; to obtain which it is constantly diving.

It is remarkable how long the Black Scoter can remain under water in pursuit of its prey; and this fact is well known to the fishermen upon the coast of France, who, placing their nets horizontally, from two to three feet above the beds of shell-fish, to which these birds resort, catch, by that means, great numbers for the tables of the good Catholics, who are taught to consider the Scoter to be sufficiently allied to the fishy tribes to constitute proper food for fast-days.

The breeding-places of the Black Scoter are the high northern latitudes within the Arctic circle. In Lapland, Finland, and the northern parts of Russia, great numbers are multiplied; the nest is placed on the border of some fresh water in the most unfrequented situations, and placed under the shelter of a willow or birch, or tuft of vegetation, or among stones; it is composed of dried stalks and leaves, and interwoven with small osier-boughs, &c.

By the beginning of June nine or ten eggs may be found in such a nest, in shape, size, and colour, as represented in our Plate. The male bird leaves the entire care of the eggs and young brood to the female, and returns to the sea to

pass the time of moulting, after which it journeys with its companions southward as before mentioned.

The entirely black plumage of this Scoter distinguishes it from other water-fowl; when on the water it swims with the head and neck much shortened, and its rump very low on the surface. As before mentioned, this bird is very expert in diving, and can remain for some minutes under water. Its walk on land is not performed with greater facility or grace than that of others of its family; its flight is tolerably quick, sometimes very high in the air, and always accompanied with considerable noise, produced by the beating of its wings: when taking wing from the water, it requires a propelling start; and on alighting, it skims the surface for some distance. When in large companies and on their migration, the Black Scoters journey in a slanting line.

The call-note of this species is a vibrating, rough sound, but during the pairing seasons the male utters the syllable *tu*, *tu*, *tu!* which is answered by the female with the response of *ra*, *ra*, *ra!*

The Black Scoter measures eighteen inches in length: the beak, from the forehead, one inch eight lines; the tarsus one inch and three-quarters; the wing, from the carpus to the tip, eight inches and three-quarters.

The entire plumage of the adult male bird is blue-black; the beak is black, with a tubercle at the base of the upper mandible; the nostrils and a round space in front of them are orange-yellow; the legs and toes are reddish-black; the eyes are brown.

The female has the head and upper parts of the body sooty-brown, the feathers being edged with a lighter colour; the chin and throat are pearl-white; the under parts are

pale chocolate brown with a silky texture: the beak is dusky-black, with only a slight elevation instead of the tubercle.

The young resemble the female, but the beak shews very soon the difference of the sex.

The egg figured 254 is that of the Black Scoter.

PLATE CCLV.

VELVET SCOTER.

OIDEMIA FUSCA.

The Velvet Scoter is, like the foregoing species, a regular winter visitant upon our coasts; its earlier or later appearance depending upon the state of the weather.

The native regions of the Velvet Scoter are the countries of Europe, Asia, and America, that are situated within the Polar Circle. In Russia it is very numerous, and in Siberia and Kamtschatka also very common, as well as in Hudson's Bay and the adjoining countries. In Greenland and Iceland the present species is not known to occur; in the Orkneys, Hebrides, and in Norway it is again plentiful. During the winter season, the severity of the weather drives it southward to Sweden, the Baltic, and Denmark, and to the coasts of Great Britain, Holland, and France; also to the inland seas of Russia, Pommerania, and Holstein. Some instances are on record of its being met with on the inland rivers and lakes of Germany, as well as in Switzerland; on the coast of Italy it has also been seen at intervals.

The Velvet Scoter leaves its summer quarters later than

most ducks, and arrives rarely before the month of November, in our latitudes. While the shores are free from ice the flocks remain in about the same localities as the Black Scoter, and about the mouths of large rivers, after which it retires to the open sea, where it passes the winter in the company of other ducks. In the month of March the spring migration takes place, which is always performed during the night.

It is very easy to distinguish the Velvet Scoter from the Black Scoter, by the white band across its closed wing; besides which, it is a plumper bird, its head is thicker, and its tail shorter.

This bird is rarely seen on land, but mostly frequents the water, for which reason it walks at all times very indifferently, and treads on its own toes for want of practice.

In the arts of swimming and diving there is no duck that exceeds it, and it is said that this bird dives for food to the depth of eight fathoms. In these feats of diving this species appears to descend as terrestrial birds of prey do upon their victims, gathering its strength, as it were, in the air, so that the force with which it descends through the air enables it to penetrate to so considerable a depth in the denser and more resisting element.

The flight of the Velvet Scoter is rather heavy when the bird only makes short excursions over the surface of the water, but when it is fairly on the wing for a lengthened journey, it proceeds with tolerable speed.

The Velvet Scoter is not by far so shy as the Black Scoter, and, under ordinary circumstances, it only swims to a couple of hundred yards from an approaching danger: when on a pond or small piece of water, it is easily approached in a boat and shot.

Sociability with its own species does not reckon among the virtues of the Velvet Scoter; it does not unite in any great numbers with its species, but is usually seen in parties of from three to six, and is often observed as a solitary wanderer.

The call-note of this bird sounds very much like that of our carrion crow, and does not lay claim to much harmony.

The food of the Velvet Scoter is much the same as that of the Black Scoter; but, in addition to the bill of fare before mentioned, we must add worms, small fry, roots, and buds of water-plants, and many seeds. It is remarkable that this species swallows muscles whole together with the shell, and as they go through the bird, these shells are ground, or triturated by the action of the stomach.

The breeding localities of the Velvet Scoter are apparently not in quite such high northern latitudes as those of the foregoing species, but they, nevertheless, abound in central Norway on the lakes and ponds in the vicinity of the sea; on the islands and between the rocks of the bays of Bothnia and Finland, and are particularly plentiful on the Lake of Ladoga. The male and female appear in pairs long before the breeding-season, and are apparently inseparable.

About the end of May or the beginning of June, the female deposits her eight or ten eggs (as represented in our Plate), and as soon as the young brood are able to swim, the mother-bird takes them to the sea, where she remains with them, watching for their safety.

The entire length of the Velvet Scoter is twenty-three inches. The beak, from the forehead, one inch eight lines; the tarsus one inch nine lines; the wing, from the carpus to the tip, ten inches ten lines.

The entire plumage of the adult male of the present

species is, as its name indicates, of a velvet black, with the exception of a space behind the eye, and a bar across the wing, which are pure white ; the beak is orange, margined with black ; the legs and feet scarlet.

The female is smaller than the male : her general plumage dusky-brown ; the under parts ash-grey, streaked and spotted with dusky-brown ; between the beak and the eye and on the ear-coverts are greyish white spots ; the beak dusky ; the legs and feet indian red.

The egg figured 255 is that of the Velvet Scoter.

253

254

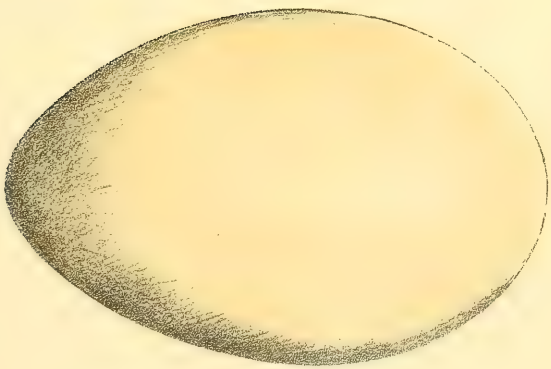


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PLATE CCLVI.

SURF SCOTER.

OIDEMIA PERSPICILLATA.

The Surf Scoter is a rare occasional visitant on the shores of the Orkney and Shetland Isles, its visits to those islands constituting the only claim it possesses of being ranked among British Birds. Its principal natural residence is in the high northern latitudes of the American continent. During the winter season this bird descends as far south, along Hudson's and Baffin's Bays, as Florida. The locality mostly frequented is the sea, and in consequence of its partiality to the heaviest surf, in which it floats with the most determined ease, it has obtained its trivial name. Its southern migration in America extends along the waters of the Mississippi and Missouri, and it is consequently not exclusively an inhabitant of the sea.

The only localities known to be frequented by these birds in Europe are the above-named isles, the coasts of Norway and Sweden, and, in one instance, the Rhine, an individual having been found on that river, which proved to be a female.

In Newfoundland the Surf Scoter is said to be well known. While the present species frequents the sea, it passes most of its time close to the shore, floating over the hidden beds of shell-fish; but when it resorts to lakes and rivers, it keeps to the central parts, as it is by nature very shy.

During its summer occupations it frequents the mouths of rivers near the shores of small islands and fresh-water lakes in the vicinity of the sea, where it seeks the shelter of reeds, flags, and long grasses, which it avoids at all other times.

The habits of the Surf Scoter resemble those of the Velvet Scoter in many respects: its flocks are said to be very numerous, and its motions in every respect alike.

The food of the present species agrees in many respects with the foregoing, to which we must add the shoots of aquatic plants, flags, and grasses, but muscles form its principal nourishment.

The breeding-places of this species are chiefly the coasts of Hudson's Bay, and the nearest fresh-water lakes and rivers.

The nest is a loose construction of grasses, flags, and other decayed plants, and is lined with down from the breast of the parent bird.

The eggs are said to be from four to six in number.

The entire length of the Surf Scoter is about twenty-one inches.

The adult male bird has the entire plumage blue or inky black, with the exception of a pure white patch on the forehead, and another just at the nape of the neck. The beak is orange yellow; the nob on the upper mandible vermilion;

the nail is almost white ; one patch of black and another of silver grey are situated on each side of the beak ; the legs are orange yellow.

The female is cinereous dusky brown where the male is black, and the two distinguishing marks on the head and neck are pale brown ; the beak is yellowish grey ; the legs and feet brown.

The egg figured 256 is that of the Surf Scoter.

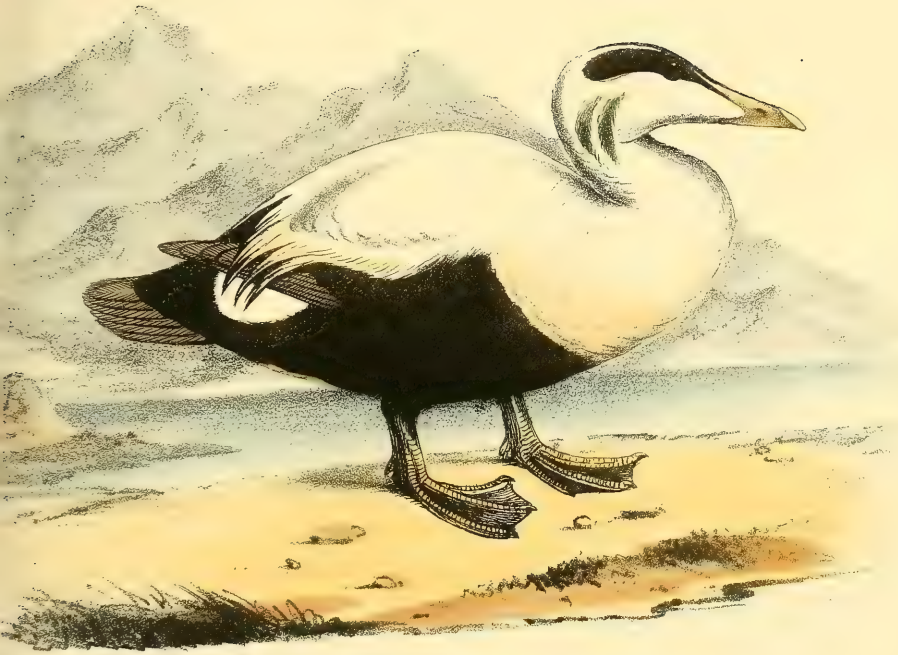
PLATE CCLVII.

EIDER DUCK.

SOMATERIA MOLLISSIMA.

The Eider Duck is an inhabitant of the northern coast and isles of Great Britain, and its geographical distribution extends in Europe to the highest northern latitudes that have ever been penetrated by navigators. During the summer this beautiful and extremely useful bird does not extend southward farther than the fifty-fifth degree; it is very plentiful in the bays and islands, and on the coast of Norway, particularly in Drontheim. During the winter its migrations reach the Baltic Sea, Schleswick, and Holstein; in Holland and France the Eider Duck is a rare occurrence. In Asia and America the present species ranges in similar latitudes, from the most northern regions to New York in America, and to the northern provinces of Russia in Asia. The Eider Duck cannot be considered so much a migratory species as a wanderer of some two or three degrees from its native abode, as many individuals are observed to remain throughout the year in their birthplace.

To what has already been said of the localities frequented



by the Eider Duck, it is only necessary to add that the bird in question only resides on or near the sea, fresh water being not only unpalatable but even injurious to its nature and constitution; on the mouths of rivers where the water is salt, and in bays of all dimensions, it is numerous, and even on the wide ocean, far from any shore. Small islands that slope gradually into the sea, the Eider Duck chooses by preference; there they may be seen to sun themselves on the sands during fine weather, in the morning.

Their time of roosting is the middle of the day, which is most frequently enjoyed on the liquid element; during the night this bird is chiefly employed in feeding, and its movements from place to place are performed morning and evening.

The general appearance of the male Eider Duck is very conspicuous, and it cannot be mistaken for any of its neighbours, but the female resembles that of the Velvet Scoter in point of colouring. When this species is on the wing, it is more conspicuous than most others, on account of its bulky form, thick head, and short neck, and its flight is heavy. Its walk on shore is very unsteady, and evidently performed with great exertion; it becomes, therefore, a necessary duty to take wing on the approach of danger. The watery element is its proper place, and consequently the bird is very expert in swimming and diving.

In the search after its food this species is obliged to resort to more shallow waters than those visited by the Scoter, as it is unable to remain so long under the surface for want of air; nevertheless it feeds on shell-fish and other marine productions that are known to lie from thirty to forty feet deep. Mussels, small crabs, sea-leaches, small fishes, their spawn, and the entrails of fish that are left by gulls, are eagerly looked for by this species, but vegetable matter is not among its food.

In the localities where the Eider Duck breeds, it is so careless, or rather so little awed, by the presence of mankind, that it makes its nest not only near, but among human habitations, and the female allows persons not only to take her eggs from her, but even to touch her without shewing any timidity; the male bird is at the same time rarely approached within gunshot, either on the water or land. During the time of migration or wandering, when great numbers are congregated, these birds cannot be approached, even by a boat or vessel of any size: the same watchfulness is kept up when the parent birds are accompanied by their young ones.

The sociable nature of the Eider Duck allows gulls and terns to breed in its immediate neighbourhood, and many of this species are generally found to breed in the same locality. Norway, Iceland, Greenland, and all the countries of the north, produce great numbers of these valuable birds, and they constitute a very important produce for the inhabitants of those regions, who greatly rely upon the eggs for food, and the exquisitely soft and warm down for defence against the cold. The coast of Northumberland may be considered as the most southern breeding-place of the Eider Duck. In some countries this bird is properly protected by the laws, which punish those who molest them with a fine of some eight or ten dollars; but where the breeding-places are respected, the number of nests increases annually to a wonderful degree, and in consequence the coasts become literally covered with the nests of these birds. On the island of Wildoe, near Iceland, where only a single family resides, the place is entirely peopled by tame birds of this species, during the breeding-season. The ground chosen for the nest is an undulating sea-coast or island, the same being scantily covered by low herbage, low

birch-trees, juniper or lichens, and at intervals interspersed with sand and shingle.

In the month of March, the birds begin to pair, when many a fight occurs between the males for the possession of their mates.

The call-note of the male sounds like *œ*, *ou*, *yew*, &c., and is constantly repeated; but before the beginning of May no preparations for building are made: the more northward, the later are these preparations. The nest is composed of grasses, lichens, sea weeds, and sea grasses, which are heaped up on each other indiscriminately, and is finally lined with the well-known Eider down. The number of eggs varies from four to eight, those breeding more towards the south having the greater number; their size, shape, and colour are as represented in our plate. The female sits about three weeks on the eggs, during which time the male remains near her; but the care of the young is entirely left to the mother after hatching, and the male resorts to the sea, where he awaits his change of plumage.

During the beginning of the existence of the young brood, the mother leads them about the shallow inlets of the sea, where they feed on the smaller kinds of crabs and lobsters that are washed up by the tides; from time to time they swim further out to sea, and soon learn to help themselves, by diving in deeper water, after which they are left to shift for themselves.

The down which is so much valued is obtained by robbing the nests, and it forms a considerably lucrative business. The Greenlanders leave most of the down upon the skins which they dress, and by sewing them together make shirts of them, which are worn with the down towards their bodies: this is a very warm and soft clothing, and protects them securely from the cold of their inhospitable country.

The flavour of the flesh of these birds is greatly relished by the inhabitants of the north, but is not fit for the table of civilised nations.

The measurements of the Eider Duck are twenty-four inches in entire length; the beak measures two inches three lines; the wing, from the carpus to the tip, eleven inches and a half.

The adult male has the forehead, top of the head, chin, cheeks, neck, back, scapulars, wing-coverts, tertials, and a round patch on each side of the rump, white; from the sides of the upper mandible, a black band, with deep purple reflexions, passes around the eyes, meets on the top of the head, and reaches a long way behind the eyes; on the sides of the face are two pea-green crescent-shaped marks; the tips of the tertials are edged with black; the breast is tinged with brown ochrous yellow; all the under-parts, rump, and upper tail-coverts black; the wings and tail are dusky, as also the webs of the feet; the beak is pale ochre, the legs and toes the same, and the eye is dark brown.

The plumage of the female is reddish-brown, transversely barred with black; the head and back of the neck streaked with dusky; wing-coverts black, edged with brown; two faint white bars across the wing; the belly and vent are dark brown, with dull transverse black bars.

The egg figured 257 is that of the Eider Duck.

PLATE CCLVIII.

KING EIDER.

SOMATERIA SPECTABILIS.

The King Eider is not found nearer to us than the Orkneys, and is consequently a still more northern species than the foregoing. In Europe, this species is by far less numerous than the Eider Duck; it inhabits the most northern countries; but in the northern parts of Asia and America it is principally at home. On the icy sea of Siberia, and in Kamtschatka it is plentifully distributed. In the upper parts of Hudson's Bay and Labrador it is frequent, and ranges from thence southward in winter as far as New York. In Greenland it is very common, and equally so in Spitzbergen and Norway. During severe winter weather, this species migrates to Denmark and Sweden, but not unfrequently remains throughout that season in its native country.

Like the Eider Duck, the present species frequents the ocean; also bays, inlets, and the mouths of rivers where the salt water predominates; and its habits are in every respect the same as the foregoing, with the exception of its remaining more northward throughout the year; during the breeding-season, the localities frequented by the King Eider are un-

dulating grounds covered with long grasses, lichens and stunted birch, and other vegetation.

The difference to be observed in the appearance of the two species of Eider Duck, consists greatly in the red colour of the beak and legs of the one under consideration; the walk, flight, and capacities of swimming and diving, are equally the same as those of the before-mentioned. The King Eider is usually sociable and even neighbourly towards its congener, except during the breeding-season when the male bird is too irritable and quarrelsome to be endured in company with the peaceable Eider Duck; when one of this species mingles among the encampment of the Eider Ducks, the persons interested in their welfare are obliged to destroy it.

In Greenland, Spitzbergen, and the coast of Norway, the principal breeding-places of this bird are to be found; but some few instances are on record of its breeding more to the south, and one has been mentioned as occurring in one of the Orkney Islands. The nest is very similarly placed to that of the Eider Duck, and the materials used for its construction are the same; the eggs are generally four or five in number, of size and colour as represented in our Plate. The male bird leaves the care of the eggs and young brood to his partner, while he departs to enjoy the company of his friends on the open sea.

The King Eider measures twenty-four inches and a half; the beak, one inch two lines; the tarsus, one inch two lines; the wing, eleven inches and a half.

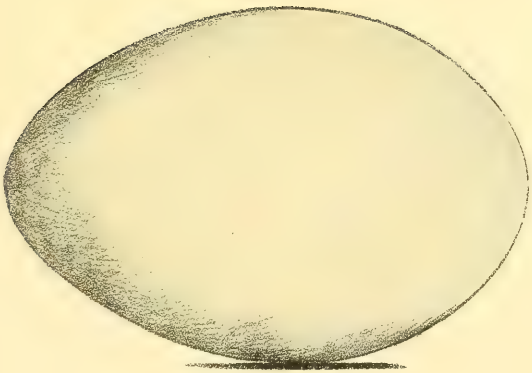
The male in adult plumage has the top part of the head and nape ash-colour; a space, forming a long triangle from the beak below the eye, is green, the cheeks also green, but of a lighter tint; the nob on the red-coloured beak is encircled with deep black, which band is continued through the eye, and surrounds the triangular patch on the sides of the face; the nail

of the beak is flesh-coloured; the upper part of the neck is white; the lower part ochreous yellow; the mantle is white, as also the wing-coverts, and a round patch on the sides between the rump and the vent; the rest of the upper and under parts of the bird are all black; the scapulars and tertials reflected with green: the quills and tail are dusky; the legs and feet orange-red; the webs dusky; the eye is dark-brown.

The female resembles the foregoing species of her sex so completely, that if it were not for the frontal plates, which are vertical instead of horizontal, they could hardly be distinguished.

The egg figured 258 is that of the King Eider.

257.



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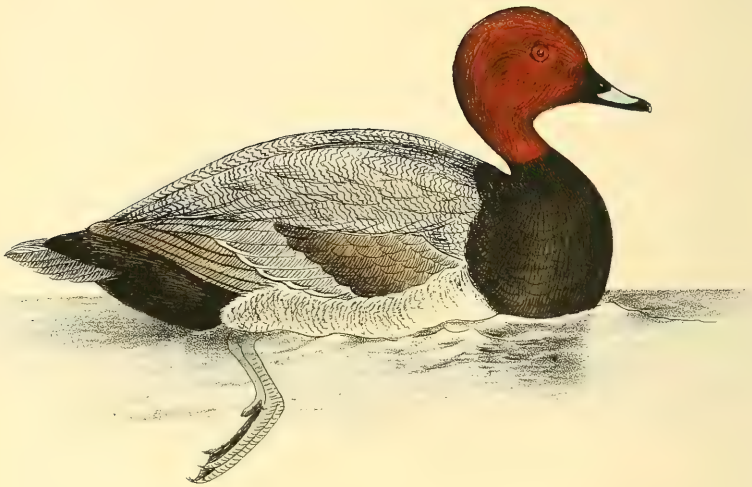


PLATE CCLIX.

RED-HEADED POCHARD.

FULIGULA FERINA.

The Red-headed Pochard is a regular winter visitant in Great Britain, particularly in the fens of Lincolnshire and in Norfolk, and in some of the more southern counties. Their numbers were much greater before the extensive drainage system was introduced into this country; and although the presence of these birds was not wished for in the decoys, on account of their disturbing propensities among other wild ducks, many were caught and sent to the London markets, where they were well received in consequence of their good flavour and usual good condition.

The geographical distribution of the present species extends over most parts of Europe, Asia, and America; its summer habitation is the north-eastern parts of Europe, the northern parts of Asia and North America, from which it migrates southward on the approach of winter; it does not go so far north as Iceland, neither further south than the temperate climes of Europe, North America, and Central Asia; but it is a well-known and widely-distributed species within its usual range.

In October and November the Red-headed Pochard

leaves its breeding-places and spreads its numbers over the southern countries, its movements depending upon the state of the weather: as its wants are chiefly supplied on the water, it is necessarily driven to milder regions for the winter, in order to escape the frost and frozen waters. In March the northern migrations begin and continue throughout that month.

The most suitable localities for the bird in question are inland lakes, rivers with soft muddy bottoms, ponds, ditches, and brooks, whose borders are supplied with willows, alders, and other low trees. We find this species frequently every winter in our immediate neighbourhood, in Surrey, on the borders of the river Thames, either swimming close in shore, or hidden under some overhanging branches of the before-mentioned trees, and also in the muddy creeks that are choked with decayed flags and rushes.

The evening or early in the morning is the time we have generally found the best to get a shot at the Red-headed Pochard; in the morning it requires the assistance of a water-spaniel to make the bird leave its hiding-place; but in the evening the best way is to watch for its approach on the water, and then to walk carefully up to the bird and rouse it from the shelter it has just gained, as these birds invariably swim to cover as soon as they alight on the water. During the day, it is not easy to approach a Red-headed Pochard within gun-shot, although many opportunities occur of its flying over low enough to be shot, when it has been disturbed by some barge or boat on the river.

The powers of flight of the Red-headed Pochard are tolerably good, but it does not pass quickly through the air in consequence of its bulk. Its flight is performed with quick and short strokes of the wings,—an exercise which requires great exertion: its evolutions on the water make up for this deficiency, the bird being an expert swimmer

as well as diver. Its walk on *terra firma* is by no means a favourite pastime; nor is it very becoming, as it can only be called a waddle or forced exhibition, and is so slow that if the bird has been winged, it requires little exertion to overtake and catch it.

The food of the present species consists principally in roots of water-plants, stalks and young shoots, which it dives or searches for in muddy shallows about the edges of the water; small frogs, insects, and small fry are occasionally its food, and also the seeds and blossoms of most aquatic plants in their proper season.

The principal breeding-localities of the Red-headed Pochard are to be found about the sixtieth degree of latitude, but not further north: many pairs of this species remain to breed in the south-eastern parts of Russia and Germany, on lakes and ponds where rushes grow in great quantities. The nest is always placed among the rushes on the side farthest from the land: patches of rushes, entirely surrounded by water, are the most preferable spots. In a locality that suits the fancy of this species, great numbers of nests are placed near each other, although each nest is placed out of sight of the others by intervening patches of rushes: where beds of rushes are wanting, osier-beds and grassy meadows frequently answer the purpose.

About the end of April the Red-headed Pochards pair; there are no quarrels between the male birds, for the female is said to choose her own mate; and the pair remain inseparable, and do not quit the spot until the young brood are hatched and ready to follow them towards the larger lakes, &c., where they consider them out of danger.

The eggs vary from eight to thirteen in number, and are in size and shape as represented in our plate.

The Red-headed Pochard measures about nineteen inches;

the beak from the forehead two inches; the tarsus one inch and three quarters; the wing, from the carpus to the tip, eight inches three lines.

The adult male has the plumage of the head deep chestnut brown; the upper part of the back, breast, and rump jet black: the middle and lower part of the back, scapulars, wing-coverts, flanks, and thighs are pearl white, finely lined with waving black pencillings; the belly and vent are white, faintly marked with the black waving lines; the secondaries are bluish-grey; the quill-feathers and tail are cinereous-dusky; upper and under tail-coverts black; the eyes are orange-red; the beak, legs, and toes French-grey; the tip and base of the beak black, and the webs of the feet also black.

The female has the crown of the head, the nape, sides of the neck, and upper part of the back reddish-brown; the throat and front of the neck white, mixed with reddish-brown; the breast is reddish-brown, the feathers being edged and mottled with reddish-white; on the flanks are some brown spots; the belly greyish-white; the back and wings, as in the male, but the zig-zag lines are fainter.

The egg figured 259 is that of the Red-headed Pochard.

259.

PLATE CCLX.

RED-CRESTED POCHARD.

FULIGULA RUFINA.

The Red-crested Pochard is an occasional and rare visitant in Great Britain, some three or four specimens having been obtained during the winter months.

The countries in which this beautiful duck is principally found are the south-eastern parts of Europe and central Asia: it is plentiful in Turkey, Greece, Hungary, and southern Italy; in Dalmatia, the northern provinces of Italy and the south of France, it is only occasionally found. From central Asia it wanders as far as the southern parts of Siberia, and southward through Persia to India.

The localities most frequented by the present species being lakes, rivers, ponds, &c., it is not to be wondered at that its occurrence in Great Britain is so rare, and we may fairly suppose that its occurrence at any time is to be attributed to the association of some straggler with a flock of Red-headed Pochards, which has thus reached us in their train as a hanger on.

The Red-crested Pochard is never met with on the sea; but lakes and rivers, whether of fresh water or salt, are equally frequented by this species. Where the borders and

inlets are well supplied with rushes, or on the wide open surface of the water, this bird is equally at ease, and it extends from thence over ponds, springy pools, and bogs, where the water is deep enough to hold certain favourite aquatic plants. In several instances this species has been known to resort to ponds situated in the midst of forests; it appears therefore immaterial whether the country it frequents is of a wooded or open description.

The Red-crested Pochard is a very conspicuous bird in consequence of its crest and bright red beak; and may, by their means, be easily distinguished from other species. Its habits resemble those of the Red-headed Pochard: it does not, by choice, pass much of its time on land, and resorts to the water on the slightest approach of danger. Its capacities in swimming and diving are very great, and its flight is equally swift and strong as that of most ducks.

Sociability among its own species is one of the virtues of the Red-crested Pochard, and it is consequently more generally seen in flocks than singly: this attachment to its associates is so great, that when a flock has been scattered, the birds fly constantly about until the party is reunited, and then they return again to the spot they left at first.

The call-note of this species is said to resemble the hoarse note of a crow more than that of a duck; but it does not often utter any sound unless it is provoked to do so.

The food of the Red-crested Pochard consists of divers parts of aquatic plants, insects, small fry, frogs, and crustacea, which latter it principally obtains either by diving or dipping its head under water, so as to reach the soft mud below.

The Red-crested Pochard breeds in most of the before-named countries: in Europe most frequently in the south of Hungary; but in central Asia the greater number are, however, produced. The most usual place for the nest is the

side of a bed of rushes most distant from the shore, and the number of eggs six or seven.

The young are able to fly about the beginning of July; the female is much attached to her young, but the male leaves the nursery as soon as the female begins to sit.

The Red-crested Pochard measures twenty-one inches in length; the beak, from the forehead, two inches two lines; the tarsus one inch four lines; the wing from the carpus to the tip, ten inches.

The adult male has the head, cheeks, throat, and upper part of the neck chestnut brown, tinged with rose red; the crest, which consists of elongated silky feathers covering the top of the head, is ochre yellow; the back and lower part of the neck, breast, belly, and vent, are black; the upper tail-coverts black, with green reflections; the back, wings, and tail, are pale cinereous brown; the flanks, bend of the wing, a spot on the sides of the back, speculum, and basal parts of the primary quills, white, tinged with rose colour; the side-feathers of the breast are all bordered with dusky brown: the tertials are greyish brown, the speculum white, with a slate-coloured border. The beak, tarsus, and toes red; the webs of the feet dusky black; the nail on the beak reddish white; the eyes bright red.

The female has the legs and feet dingy yellow; the beak red, but duller than in the male; the plumage on the top of the head, forehead, and nape, brown; the rest of the head and neck are dingy, or soiled white; the upper part of the breast, upper part of the back and sides of the breast and belly yellowish wood brown, with paler edges to some of the feathers; the middle of the belly white; the speculum as in the male; the tail and back yellowish brown, or rather Egyptian brown; the quills dusky.

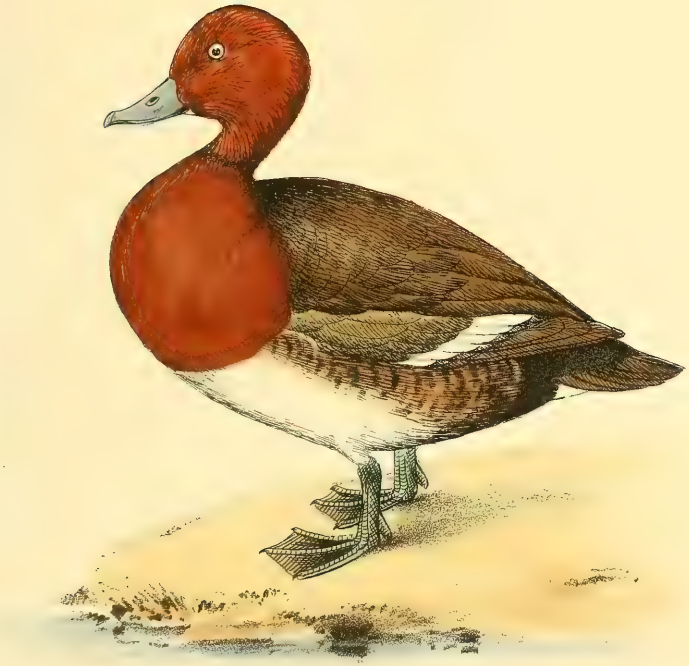
PLATE CCLXI.

NYROCA POCHARD.

FULIGULA NYROCA.

The Nyroca Pochard is a winter visitant in Great Britain, but neither regular nor frequent in its occurrence, which may be attributed to the same causes as the rare occurrence of the Red-crested Pochard, namely that this bird, which belongs to the eastern parts of Europe, to Asia, and to Egypt and Nubia in Africa, is rarely found by the sea-side, but principally on the lakes and rivers inland, and only makes its appearance in Britain when associated with flocks of the Red-headed Pochard.

Upon the rivers Wolga, Don, and Dniester, in Russia, it is plentiful, as also in Galicia and Hungary; from thence it wanders as far north as Denmark, and the southern parts of Sweden and Norway. In Holland, France, and Switzerland it is rare. In the southern parts of Hungary



and Italy, it is everywhere as numerous as the Gadwall (anas strepera.)

The Nyroca Pochard, as well as the red-crested species, seems to prefer a mild climate, since it migrates southward in September and October, even from the European continent, and does not return before the end of March or April, and invariably avoids frost and snow. Being chiefly a frequenter of lakes and rivers, the Nyroca Pochard visits the sea-coast only as a place of refuge, and then only frequents the muddy quiet bays and creeks that are bordered with verdure: even on rivers it prefers the same quiet and unfrequented spots, with muddy bottom and a good supply of rushes, flags, and divers aquatic plants. Osier beds or wooded banks do not suit its habits; neither is it partial to entirely open water either on lakes, ponds, or rivers.

During the migratory seasons, the Nyroca Pochard is frequently to be met with on ponds of small dimensions, provided rushes are present, as also the water lily, ranunculus, and common duckweed.

Morning and evening are the times of feeding; also moonlight nights. The day is generally passed in roosting, either among the weeds, or floating on the surface of the water.

The plainly marked black and white speculum on the wing of the Nyroca Pochard, easily distinguishes it from the other ducks of its family.

On land the motions of the present species are ungainly and feeble; the bird consequently does not pass much of its time on shore. Its swimming capacities are, however, perfect, and in diving none exceed it, not only in expertness, but in the time it can remain under water; still it does not seem to prefer diving beyond

four or five feet deep. When this bird takes wing from the water, it rises apparently heavily, and its bulk prevents its passing quickly through the air. It generally flies low, although it rises to a tolerable height during its migration.

The Nyroca Pochard is by no means shy, which enables a sportsman to approach it frequently within thirty yards and less. Its numbers amount to fifty, and even double that number, during the time of migration ; at other times to six or eight, with the exception of the breeding-season, when they appear in pairs.

The call-note of this species sounds like the word *currr, currr !* that of the female is expressed in a higher pitch, and the young chirp.

The food principally consumed are, the roots, stalks, young shoots, buds and seeds of aquatic plants ; but most of all, those that belong to the floating-leaved plants : aquatic insects, frogs, small fry, and the spawn of both are also greedily devoured.

In confinement, the present species thrives well on wheat and barley, and may be kept for several years : it becomes tame, either when caught young, or when hatched under a tame duck ; but it requires the range of a pond, either large or small.

The chosen locality for breeding is generally some pond, upon the surface of which a party of Nyroca Pochards are seen to swim about in March,—the largest number being generally males, battles ensue daily for the possession of a mate, and when a choice is made, the pair retire to some overhanging bank, where they remain apart from the rest. By the beginning of June the eggs are being deposited ; these the female covers carefully with down supplied from her own breast. The male retires from

the breeding place about a week after the female begins to sit.

The eggs do not exceed five in number, and are hatched in two or three and twenty days. The female leads her brood on the water as soon as they are dry, feeding them at first with insects and their larvæ.

The entire length of the Nyroca Pochard is sixteen inches and a half.

The plumage of the adult male in the breeding-season is as follows; the head and neck are bright Venetian red: at the base of the neck is a blackish-brown band, which divides the above from the ferruginous bright chestnut of the upper part of the breast; the back and tertials are dusky brown, glossed with green and purple, and finely speckled with reddish brown; the chin, just below the under mandible, is white; the wing-coverts are the same as the back, but paler; the speculum is pure white, below which is a black band, caused by the tips of the feathers being bordered with that colour and edged with greyish white; the quills and tail-feathers are dusky brown; the belly and under tail-coverts white; the flanks dusky, with the feathers broadly edged with pale brown; the vent blackish grey, speckled with pale yellow; upper tail-coverts dusky, with a tinge of ferruginous; the eyes are white; the beak, legs, and feet bluish ash; the nail on the beak and the webs of the feet dusky.

The female has the head, neck, breast, and flanks brown, the feathers being edged with reddish brown; the ring round the neck is very little marked; the back dusky with paler brown edges to the feathers, the rest as in the male; the belly spotted all over with pale brown and dusky; the eyes beak, and legs like those of the male.

The male in summer-plumage resembles the female, with

the exception of the belly being soiled white in its centre, and without spots, and the colours generally brighter, and the spots in other parts less in size: this can only be seen by comparing the two together, namely, the male and female.

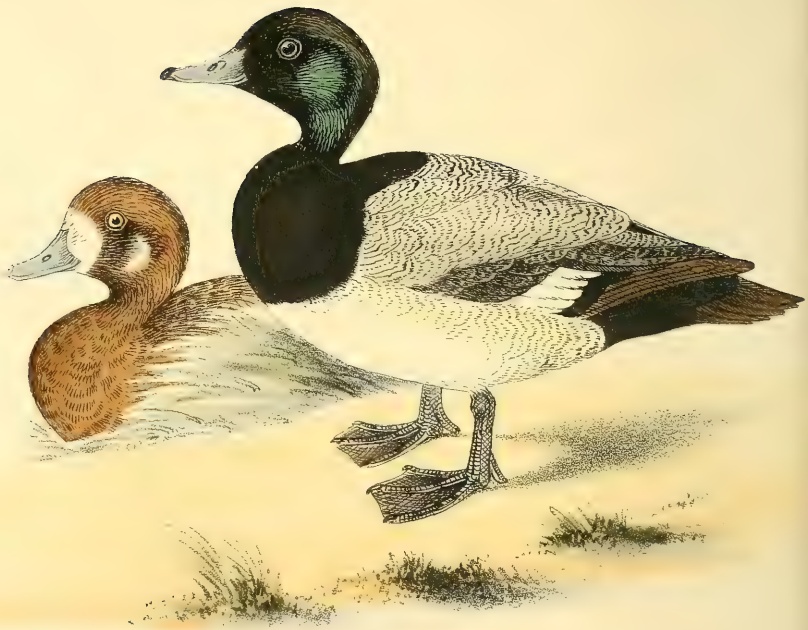


PLATE CCLXII.

SCAUP POCHARD.

FULIGULA MARILA.

The Scaup Pochard is a regular winter visitant in Great Britain, arriving early or late according to the earlier or later setting in of the northern winter in its native countries, which are the northern parts of Europe, Asia, and America. Its numbers are very great about the Arctic regions: in Europe it ranges from thence according to the season as far as the shores of the Mediterranean, and in the same proportion in Asia and America. To enumerate the countries from whence it comes to us in the months of October and November, we have to mention Greenland, Lapland, Iceland, Norway, Sweden, &c. Although many Scaup Pochards reach our shores, the numbers that pass the winter in Denmark and Holland exceed them very greatly, but the northern coast of France has not so many as the British Isles.

The present species differs not only in its residing by far more northward than the three foregoing, but also in its preference of the sea-coast and salt-water, which preference is

so marked, that it follows up the course of rivers only as far as they are influenced by the influx of the tides. Where Scaup Pochards are found on inland seas or lakes, it is evidently only for the purpose of recruiting themselves during their migrations. The muddy shores of the sea suit the habits of the present species most of all, from whence it swims out to no greater distance than where the depth of the water is within ten or twelve feet. In such localities it finds its food in abundance, which consists of bivalve and univalve shell-fish, for which it dives constantly, and turns up the mud with its beak : for this purpose the bird in question remains quite a minute under water, and after recovering its breath, repeats the same for hours within a given spot, provided there is a good supply of food to be found. This performance is a great amusement to the observer, particularly where a number of these birds are thus engaged in their daily pursuit ; but the sportsman who fires at one of them and only wings his bird, has a difficult task in securing his prize, because this bird can swim below the surface of the water with more velocity than he can row a boat. It is a beautiful sight to observe a string of these birds swimming on the sea, and especially to notice the usual manner in which they rise from that element. When one of the extremities of such a long body raises itself in the air, the rest rise as their turn comes ; and thus they are, as it were, drawn up one by one from the surface of the water : and when pursuing their course, they continue to keep the same order in the air ; on alighting the same regularity is observed, unless the birds are on their migratory passage, during which time they do not always follow each other so regularly, owing to some being more tired than others.

Like many other ducks the Scaup Pochard does not excel in its movements on dry land.

The hardy nature of the Scaup Pochard makes it able to endure severe cold; but as its principal food must be obtained from the bottom of the sea, and, moreover, about the more still waters at the mouths of rivers, it is natural that the bird is driven southward by frosty weather, in order to satisfy its wants. When it is driven in this manner to resort to lakes or more sheltered situations, it becomes necessary that the bird makes shift with aquatic vegetables, &c.; it is therefore only under such circumstances that it is seen by chance elsewhere than on the immediate sea-coast.

In confinement, the Scaup Pochard becomes soon tame, and thrives well on seeds and grain; under which circumstances it also loses in a great degree the fishy flavour of its flesh, which is said to become equal to that of the Mallard or Wild Duck.

The Scaup Pochard breeds in all the northern countries, such as Norway, Iceland, Greenland, and the countries around Hudson's Bay. The nest is put together of dried stalks, grasses, decayed leaves, and such herbage as can be found in the place, and the eggs are from eight to ten in number, and are in shape, size, and colour, as represented in our Plate.

In consequence of the severity of the climate, the female does not begin to lay before May, and by the middle of October the family are commencing their journey to the south.

The length of the present species is twenty inches; that of the beak, from the forehead to the tip, one inch ten lines; the tarsus measures one inch and a half; the wing eight inches six lines.

The plumage of the adult male in the spring is very distinctly marked; the head and neck are what is termed dark duck-green; the upper part of the back, sides, and breast are black, as also the rump, vent, and upper and under tail-

coverts ; the back and scapulars are white, being finely marked with transverse grey undulating lines ; the wing-coverts and tertials are purplish grey with black pencillings ; the speculum is white with a black border below ; quills and tail dusky ; the belly is white, with zigzag pencillings on the sides, and a yellow tinge ; the beak is blue ; the nail black ; the legs and feet are pale blue, with an oily green tint on the joints ; the webs black ; the eyes are gold yellow.

In the female, the head, neck, upper part of the breast, and side-feathers, rump, and tail-coverts are umber brown, the feathers being more or less edged with a paler tint ; the entire frontal part of the face surrounding the beak is white ; there is also a whitish spot on the ear-coverts ; the speculum is white with a black border ; quills and tail dusky ; the beak, legs, and feet are blue ; the nail on the beak, the claws and webs of the feet are black ; the centre of the belly dingy white ; the eyes yellow.

The male, after the season of breeding, assumes a plumage almost entirely similar to that of the female above described.

The egg figured 262 is that of the Scaup Pochard.

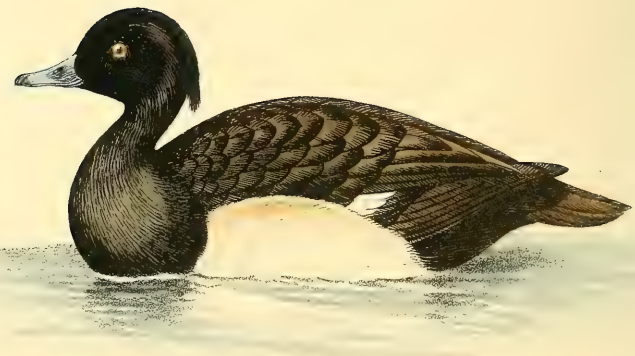


PLATE CCLXIII.

TUFTED POCHARD.

FULIGULA CRISTATA.

The Tufted Pochard is a regular winter visitant in Great Britain, not occurring in great numbers, but equally on the sea-coast and about inland lakes and rivers. Its geographical distribution extends over the northern parts of Europe and Asia; according to some writers, also to America; nor do we see any reason why the present species should not reach America during its migrations. The summer habitation of the Tufted Pochard is Lapland, Sweden, Finland, and Kamtschatka, from whence it migrates southward on the approach of winter to the intermediate countries as far as Italy, Hungary, and Switzerland; in Asia, it extends as far as Japan, and visits the waters of the entire continent.

In March and April, the present species begins to draw northward from its most southern winter quarters, and starts fairly for its breeding localities by the end of April and May. Its migrations are generally performed at night, in proof of

which this bird is first observable in the morning about the time of its expected visit, and in spots where thousands have been seen in the evening, not one is to be found the following morning. Late in the evening, particularly when the nights are dark, large flocks fly over rather low, with incredible swiftness and with noisy wings, which a lonely wanderer may either enjoy or be considerably startled at.

The chosen spots for its usual sojourn are either still or standing water in lakes, ponds, or bays, and inlets on the sea-coast; and with the exception of the time of breeding, it is of no importance whether the waters are free from reeds and vegetation, or whether the banks are rocky, flat, covered with verdure, or barren: on the surface of rapid streams of rivers, this species is only seen when all other parts are frozen and covered with ice. It is a rare occurrence to see the Tufted Pochard on land, unless the female has its nest among the vegetation on the border, or in an inlet adapted for that purpose, and then the mate may be seen sunning himself close beside to her.

During the day great numbers roost on the water at a proper and safe distance from the shore, with their heads under their scapulars.

Like the foregoing species, the Tufted Pochard is very clever in its evolutions on the watery element: it dives equally well in pursuit of its food, and swims with ease and swiftness; this renders it very difficult to obtain the bird, by means of fire-arms; and in the fens it disappoints the fowler by diving and returning to the open ponds, instead of taking wing and flying into the funnels erected for its destruction.

The sociability of this bird cannot be doubted, as it is always seen in companies of eight or ten, or in large flocks, but hardly ever alone.

The call-note of the Tufted Pochard is a harsh expression, sounding like the word *curr, curr !* or *carr, carr !* The young chirp.

Its food consists chiefly of aquatic insects, mollusca, and bivalves, which it obtains by diving; also small frogs and their spawn; and in case of need, it consumes parts of aquatic plants, such as roots, buds, and seeds. On the borders of the Baltic its principal food seems to consist of a particular species of snail called *Turbo litoreus.*

Formerly, the breeding-places of this species were considered to be exclusively found as far north as Lapland and Finland; but of late years the nest and eggs have frequently been noticed in Mecklenburg. The stony borders of small islands in lakes or rivers, not too much covered with verdure or reeds, seem the most chosen spots, particularly where some patches of rushes are close to the shore, but not immediately joining the land.

Before the beginning of June no nest is to be found of the present species, although they pair early in the spring, and may be seen flying about continually near the surface of the water; this fact proves plainly that the greater numbers breed in high northern latitudes, where the ice and snow do not give them a chance of thinking of it sooner.

The nest is either placed in a hollow on the grassy ground, or under the shelter of a stone, stump of a tree, or some vegetable production, at a distance of from sixty to a hundred yards from the water. The nest itself is composed of stalks and grasses, carelessly put together.

The eggs vary from eight to ten in number, and are in size, shape, and colour, as represented in our Plate.

The male bird remains with the female until she begins

fairly to sit on the eggs, and then retires with its companions to await the season of moulting in some unfrequented spot, which some ornithologists believe to be the ocean, in consequence of the fact that the male bird is nowhere else found during that season.

The Tufted Pochard measures seventeen inches in length; its beak from the forehead one inch seven lines; the tarsus one inch four lines and a half; the wing eight inches two lines from the carpus to the tip.

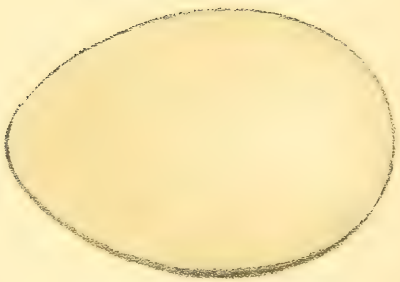
In spring plumage, the adult male has the head and neck, including the tuft or pendant crest, black, with purple and green reflections; the lower parts of the neck and upper part of the breast are perfectly black; the back, scapulars, and rump are olive dusky brown; the wing-coverts, quills, and tail dusky; the vent is dusky; the under tail-coverts black; the lower part of the breast and belly are cream-coloured white; the speculum white, with a black border along the tips of the feathers; the beak, legs, and feet are blue; the tip of the beak and nail is black; the webs of the feet and claws dusky black; the eye golden yellow.

The summer plumage of the male is sooty brown; the lower part of the breast and sides ochrous yellow; the centre of the belly white.

The female is rufous brown, with light edges to the feathers; the feathers surrounding the beak are pale yellow, and the upper mandible is dusky to beyond the nostrils; the under tail-coverts white, speckled with brown; the centre of the belly white; eyes yellow; beak and feet blue, but paler than in the male; speculum white; the tuft on the head is smaller but sufficiently conspicuous.

The young bird of the year resembles the male in summer; its breast and side-feathers are more distinctly edged

262.



263.

and mixed with rufous; the belly is white, and the forehead and region of the upper mandible white also.

The nestling is greenish olive grey; beak and legs pale ash-colour.

The egg figured 263 is that of the Tufted Pochard.

PLATE CCLXIV.

WESTERN POCHARD.

FULIGULA DISPAR.

The Western Pochard is one of the rarest birds that have occurred in Great Britain, and the only specimen that we know of was obtained in February, 1830, at Caisted, near Yarmouth in Norfolk.

The north-eastern parts of Asia and the opposite coasts of America seem to be the native countries of this beautiful and rare duck, among which may be enumerated Kamtschatka, and the coast of the Kurilen and Aalaschnka.

Four or five individuals only are recorded to have been captured in Sweden, one in Denmark, and a female on the borders of the Baltic near Dantzic. The localities frequented by the Western Pochard are rocky coasts, from whence it only comes to the mouths of large rivers during stormy weather.

The plumage of the Western Pochard makes it a conspicuous object of attention, and it cannot be mistaken for any other duck; therefore, it is unlikely that it is overlooked by sportsmen, particularly in the present age, when the sub-

ject of Natural History, and particularly Ornithology, has become a lucrative branch of trade, even among the uninitiated part of the community.

The flight of the present species is very swift, and it swims and dives with great ease. In countries where the Western Pochard abounds, we are informed that it keeps together in flocks of its own species exclusively, and the pair are inseparable.

The food of this species is chiefly small shell-fish, which it obtains by diving, and consequently busies itself all day long in swimming over beds of such marine productions as are at no great depth under water. Small fry, marine insects and their larvæ also supply part of its wants.

The breeding-places are situated among the most inaccessible rocks on the shores of the ocean, and its young are led, as soon as they are hatched, to the inlets of the sea.

The entire length of the Western Pochard is eighteen inches, the wing nine inches.

The plumage of the male in the spring of the year has the head and upper part of the neck white; a pea-green spot before the eyes, and another on the tuft about the nape of the neck, which tuft has also a spot of black below the green; behind the eye is an irregular black mark, and from the base of the under mandible extends a black streak that surrounds the neck midway in the shape of a collar, and finally runs down the back to the tail-coverts; the under tail-coverts and vent are also black; the quills and tail are dusky; the upper part of the breast and its sides, the wing-coverts and scapulars, are white: the tertials are long, pointed, and curved downwards; the four upper ones have the inner webs white; the outer, black, with blue reflections, and a white shaft streak; the speculum is blue, bordered with black and white; the entire breast and belly are brownish-yellow; the

eyes brown; the beak, legs, and feet are olive-green; tip of the beak yellow, webs black. On the side of the breast, just above the carpal joint of the wing, is a black spot with green reflections.

The female has the entire plumage chestnut-brown, spotted all over with dusky; the quills, tail-feathers, and three longest tertials, are dusky; the wing-coverts dusky olive-brown, with the tips of the feathers very pale brown; the greater wing-coverts are tipped with white; the speculum deep chestnut; below which, the white tips of these feathers form a narrow white bar. The beak is olive-black; its nail yellow-horn colour; legs and feet pale blue; claws, joints, and webs black; the eyes brown.

PLATE CCLXV.

LONG-TAILED DUCK.

ANAS GLACIALIS.

The Long-tailed Duck is a winter visitant in the northern parts of Great Britain, but very rarely met with south of the coast of Northumberland. The native region of this species is as far north as travellers have ever yet penetrated, and consequently as far as where any part of the ocean remains unfrozen, and capable of furnishing it with food. Its numbers are very great, as well on the American coast, from Greenland southward, as on the entire northern coast of Asia and Europe.

The locality frequented is invariably the sea-coast, particularly bogs, inlets, and mouths of rivers.

The present species being only dislodged by the severest frost from its northern summer habitation, it is naturally hardly ever seen to arrive in the autumn before the end of October, or beginning of November, and remains with us until the beginning of April. In the month of December many flocks, each consisting of from thirty to forty individuals, congregate in the Baltic, and literally cover the surface of some of the inlets, amounting to as many as five or six hundred individuals, and thus enliven these quiet spots

in a very agreeable manner, uttering their call-notes all day long. On the coast of Holland and France its occurrence is very rare.

When the frost closes the water, the Long-tailed Duck joins the divers species of ducks that are congregated on the sea, about the mouths of rivers, and increases the myriads that frequent those localities.

The spring, or northern migration, is performed in large flocks during the night, which is ascertained by the noise of their wings, and their frequently repeated call-note; the direction of their route is always towards the north-east.

Although their usual place of abode is the sea-coast, many pairs of this species go inland to lakes and ponds during the breeding season.

The Long-tailed Duck is an expert diver as well as swimmer, but unless it is obliged by some sudden necessity to take wing, it does not prefer that mode of changing its position, as rising from the water is an act that requires some exertion, and it generally flies very near the surface of the waves.

This species is not shy on its arrival with us, owing to its never having been pursued by man, or very rarely so, in its native country, and it is a regular and easy matter to approach a party on the water with a boat to within fifteen yards and less; but after some shots having been fired, it soon becomes more wary and careful.

Among its own species the Long-tailed Duck is very sociable, but not so towards others, whose company it only endures during the time of dearth, when it associates with them near the mouths of rivers.

The food of the present species consists principally in shell-fish, which it obtains by diving to a depth of from four

to eight fathoms; and this accounts for the favourite locality being near the coast where beds of its natural provision are within its reach: when severe weather drives the Long-tailed Duck further than usual from the shore, where the depth of the water exceeds eight fathoms, the bird soon becomes poor and weak. It is said that its food during the breeding season is also, in a great degree, roots, leaves, buds, and seeds of aquatic plants.

The reproduction of the present species is principally carried on about the fresh-water lakes, ponds, and bogs in the most northern countries of Europe, Asia, and America; many pairs are there found to breed in company, and are even met with in the vicinity of other ducks engaged in the same occupation.

About the latter end of April the birds arrive in pairs at their breeding-places, and in May the female lays five to eight eggs, lining her nest with the down from her own breast. By the end of June or beginning of July the young make their appearance, and are soon led to the sea-shore and instructed to swim, dive, and provide for themselves. The male, which leaves the care of the nursery to his mate, joins his family on their arriving in that locality, and accompanies them in their migratory journey and winter sojourn.

The peculiar call-note of the Long-tailed Duck sounds like *wark*, *wark*, *wark*, and in the spring of the year *ah aulik*, *ah aulik*, etc.

The measurements of the adult male of the Long-tailed Duck are, entire length twenty-two inches; the wing nine inches and a half.

The plumage of the adult male in the spring of the year is very marked and distinguished: it has the top and hinder part of its head silvery-white, the hair-like feathers of which

form a crest; the neck, throat, and upper part of the breast and mantle are white; the sides of the face are a roseate pearl grey; on each side of the neck is an oblong brown patch; the back, breast, and tail-feathers are chocolate brown, as also the wing-coverts; the quills and two long tail-feathers are dusky; the speculum yellowish-brown, with a lighter edge; the scapulars and tertials white; the sides, belly, vent, and outer tail-feathers white; the sides tinged with ash-colour; the beak is dusky black at the base and nail; the greater part of the upper mandible orange; the eye king's-yellow; legs and feet greenish ash; the webs black.

The adult female has a black beak, with an orange-yellow band on the upper mandible; legs and feet grey, with darker webs and joints; the crown of the head, patch behind the ears, chin, and throat, purplish-brown; the face, neck, and ring around, soiled white; the breast livid brown, with dark centres to the feathers; the upper parts dusky black; the scapulars and wing-coverts margined with brown-ochre and greyish-white; the tail purplish-brown, edged with white; under parts white, with yellowish-ash on the sides of the body.

The egg figured 265 is that of the Long-tailed Duck.

PLATE CCLXVI.

GOLDEN EYE.

CLANGULA VULGARIS.

The Golden Eye is a winter visitant in Great Britain, and more or less numerous according to the severity or mildness of our winter. Its geographical distribution extends over European and Asiatic Russia, Sweden, and Norway; but it is not found in Iceland and Greenland. On the approach of winter this species comes southward to the Baltic, Holland, Great Britain, and France in considerable numbers, and extends in small parties over the Continent, being found in Hungary, Italy, and the south of France, &c. This species differs from most other northern ducks in this particular, that several pairs remain throughout the year in parts of central Europe, such as Switzerland, Silesia, Saxony, Prussia, and Denmark. In Asia it reaches as far eastward as Japan and Tartary.

The migration in the autumn rarely commences before the beginning of November, and the return in the spring takes place in March or April.

The locality frequented by the Golden Eye is either salt or fresh water; although the chief numbers pass most of their time on and about the sea-coast, many are known to

resort to lakes, ponds, and inland rivers, not only during the time of migration, but also during the breeding-season. We have met with the present species on the river Thames in the month of March after a heavy fall of snow, and as their flesh was very excellent, the birds must have frequented, for some time at least, fresh-water localities. Spots where the water is open and deep, suit its habits best, whether the bottom consists of sand, gravel, or mud; therefore this species must be looked for in such localities, and not along the shore among the flags and rushes; and it is rarely met with on shore. At sea the Golden Eye is principally seen swimming at a distance from the shore over a depth of two or three fathoms, in preference to ranging about extensive muddy flats.

The male of the Golden Eye is very easily distinguished from most other ducks by its strongly defined colours of black and white, but the female and young are not easily identified when seen in a wild state, when on the water, under which circumstance the white on the lower part of the neck is very frequently hidden, and therefore they greatly resemble the female and young of the red-headed pochard. The movements of this species on the water are very expert, and in diving it is perfect; the bird swims very low, and often floats about like a piece of cork or wood; when it dives, it has been observed to raise itself again quickly by touching the bottom with its tail, and this it does so frequently that in many instances it will be found that the tips of its tail-feathers are much worn. Its flight is tolerably strong, the motions of its wings very quick and apparently fatiguing; on taking wing from the water, this bird requires, as it were, a start to rise.

The manner in which the Golden Eye evades danger is by swimming and diving, being able to proceed with swiftness a

great distance below the surface of the water; and when on the wing, and pursued by birds of prey, it has the capacity of shooting down from the air into the water and disappearing instantaneously below its surface.

The Golden Eye may always be distinguished during the night from other ducks, when on the wing, in consequence of the peculiar sound that is produced by the formation of the first five primary quill-feathers, which are more sinuated than in any other species, and the sound resembles nothing so much as that of small tin bells, shaken in the hand, such as those attached to young children's toys: in consequence of this sound the duck in question has obtained in some parts of the Continent the name of Bell-Duck. On the Continent the sound of small bells here alluded to is familiar to every ear, as they are constantly used on sledges and other vehicles that travel on the snow, in order to give warning of their otherwise noiseless approach; indeed so necessary is it that such warning should be given, in order to prevent any accident by collision, that the use of these small tinkling bells is enforced in some countries by legislative enactments.

The present species is very shy, and consequently rarely seen by others than sportsmen; its call-note resembles that of the wild duck in expression, but the hoarseness of the rook in sound.

The food of the Golden Eye consists in shell-fish, water-snails, small fry, frogs and frog spawn, and also aquatic vegetable productions, their roots, buds, and seeds, according to the season and the locality it frequents; its flesh is considered more or less fit for the table, according to the taste of the inhabitants of the country and place where the bird is obtained.

The chief numbers of the Golden Eye retire to northern

climes for the purposes of breeding, which takes place on the banks and borders of lakes and rivers; their nests are placed among rushes and coarse grasses, and in some instances in the hollow of a tree; the eggs are from ten to fourteen in number.

The entire length of the adult male is eighteen inches and a half; the beak from the forehead one inch three lines; the tarsus one inch six lines; the wing eight inches three lines.

The plumage of the adult male is as follows :—The head and upper part of the neck black, with a strong and general gloss of green; a space or round patch of pure white close to the upper mandible, which does not reach quite as far as the eye: the lower part of the neck, and all the under parts pure white, with the exception of the thighs and vent, which are mottled with black and white; under tail-coverts white; the feathers of the flanks are elongated, and bordered with black; the back, rump, and upper tail-coverts are deep black; scapulars white, with black borders; quills dusky; the wing-coverts and secondaries are white; the tail greyish-black; the eyes golden-yellow, the beak black, the legs and feet orange, their webs dusky.

The female has the entire head brown, the upper part of the breast, sides, flanks and thighs greyish-ash, with dark centres to the feathers; the lower part of the neck, belly, and vent, white; all the upper parts greyish black, with paler edges to the feathers; lesser coverts grey, tipped with white; greater coverts white tipped with black; beak black with yellow tip; eyes, legs, and feet pale yellow.

The egg figured 266 is that of the Golden Eye.

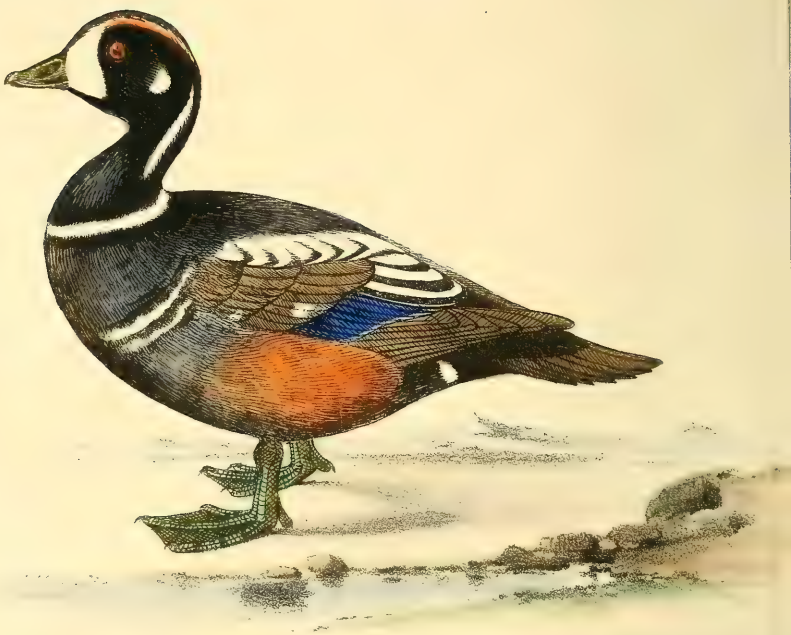


PLATE CCLXVII.

HARLEQUIN DUCK

CLANGULA HISTRIONICA.

The Harlequin Duck is a very rare visitant in Great Britain, its occurrence having been confined to a very small number that were obtained in the northern parts of Scotland, and we believe in a single instance near Yarmouth.

The geographical distribution of this species is confined to the northern parts of Europe, Asia, and America. In Siberia it occurs at Lake Baikal, and in very severe winters, as far south as Aral and the Caspian Sea; from Kamtschatka it reaches over to the American coast; it is very plentiful in Hudson's Bay, Labrador, and Newfoundland, and descends, during the winter months, to the northern coasts of the United States. It also inhabits Greenland and the Icy Sea. In Europe it does not extend far south; but more so in the eastern than in the western parts. It is extraordinary that this bird is said to have been obtained on the Rhine, the Maine, and the Danube, since its choice of locality does not agree with either of these rivers, and we can, therefore, only attribute the circumstance to most unusally frosty weather.

The present species is so much an inhabitant of the sea, that it even remains near it during the breeding-season.

The distribution of the colours in the plumage of this duck has obtained for it the appellation of Harlequin, although the bird must be brought in close contact in order to make its beautiful plumage deserve the name; for its appearance at a small distance even, is only that of a dark object.

Like the foregoing species, it dives admirably well, and in the act of swimming it nods its head at every stroke.

Flying is only resorted to during its migratory journeys, or when forced by circumstances; it is performed apparently with great exertion and with quick beatings of its short wings.

The Harlequin Duck is a shy bird, but sociable among its own species, and consequently rarely seen singly, frequently in pairs, but more commonly in flocks.

Its oft-repeated and incessant call-note sounds like *eck, eck, eck!*

The food of the present species is shell-fish, both bivalve and univalve, small fry, frogs and their spawn, and also vegetable matter, for which it dives continually; and equally well in still water as in currents and rapids, or during windy weather when the waves run high.

In the month of May the Harlequin Duck frequents the vicinity of the polar circle, where it is seen paired, frequenting mouths of rivers, inlets, projecting rocks in the sea, and the stones about rapids; the pair are very partial to each other, and remain constantly together.

The nest is generally placed near the edge of the water, under shelter of dwarf-birch, willow, or juniper-trees; its construction consists of dry grasses, stalks, and leaves.

The eggs are from five to seven in number, in shape, size,

and colour, as represented in our Plate; the texture of the egg is very fine, but without polish.

The female is very careful of the young brood, and remains with them throughout July on the rivers, after which the family depart for the sea.

The flesh of the Harlequin Duck is very fishy, and it requires an excellent cook to make it eatable.

The length of the adult male is seventeen inches, its beak one inch six lines.

Its head and neck are black, glossed with purplish violet. A space between the beak and eye white, and this colour extends in two narrow bands over the top of the head, and is bordered by another band of bright chestnut below each, jointly reaching as far as the nape; there is another white spot on the ear-coverts; a white line on each side of the back of the neck; one irregular space on the side of the breast; two spots on the lesser wing-coverts; another on the sides where the upper and under tail-coverts join; again, a large white space on the scapulars, on the tertials and the tips of the greater wing-coverts that form the steel-blue speculum on the wing; a white ring divides the plumage of the neck from that of the breast and back. All the white here enumerated over the body is bordered with deep black. The upper part of the back, the breast, and belly, are black, with a strong bloom of blue like that of a black grape; the back, wing-coverts, and lower part of the belly, are cinereous or brownish black; the lower part of the back, vent, and tail-coverts are black; wings and tails dusky; the flanks are chestnut; the beak is black, with oil-coloured edges to the mandibles; legs and feet bluish oil green; webs dusky; the eyes are rich deep reddish brown.

The female is entirely clad in a soot-coloured garment; some white feathers appear between the beak and eye, which

are divided by a dusky space before the eye, and a white round patch on the ear-coverts; the lower part of the breast is also checkered with white, owing to the feathers being tipped with that colour; the beak, legs, and feet, like those of the mate; the eye is dusky.

The egg figured 267 is that of the Harlequin Duck.

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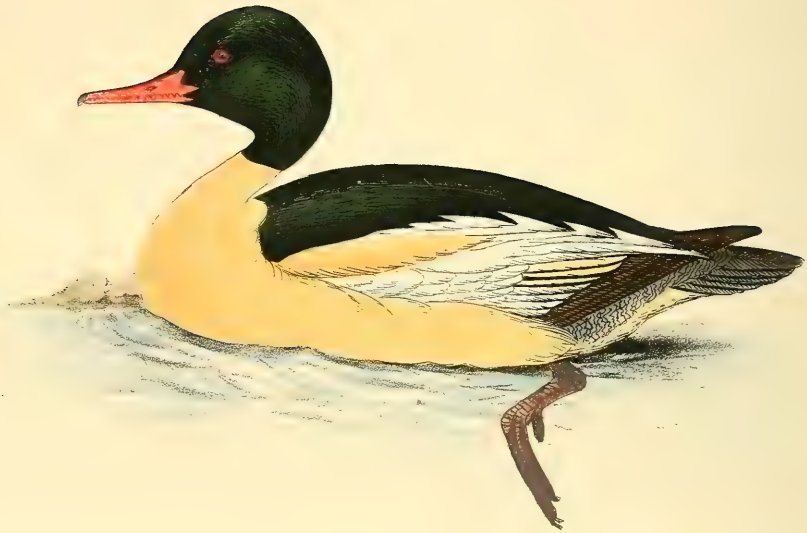

PLATE CCLXVIII.

GOOSANDER.

MERGUS MERGANSER.

The Goosander is an occasional visitant in the southern parts of Great Britain, but found throughout the year in the northern parts of Scotland, the Orkneys, and other Scottish islands.

Many instances are on record of this bird having been captured during severe weather between the months of November and March, in counties adjacent to the coast; and the fine specimen from which our drawing was made was obligingly lent us by Lady Rolle for the quarto edition of our work: the specimen was accompanied by a coloured drawing of the bird, in order to shew the beautiful tints of the plumage when recently dead.

The present species is widely distributed throughout the Arctic regions of the Old and New World.

It is an inhabitant of the colder regions in the summer. From North America it extends over the United States; from Siberia it wanders to Japan and Tartary, the Black Sea, the Caspian Sea, Turkey, Greece, Poland, Hungary, and Italy. From Finland and Lapland it descends through Norway, Sweden, and Denmark, to the Baltic, Prussia,

Pomerania, Holland, France, and Switzerland: in the latter, however, it only appears occasionally.

Of all the Mergansers the present species is the most frequently seen in our climates, and consequently found in all states of plumage.

The autumnal migration generally takes place in November, and the spring migration either in February or March, according to the state of the weather.

The locality frequented by this bird is the sea-coast, and the mouths of rivers; and being rather partial to fresh water, it enters the rivers, particularly those that run with a strong current. Under all circumstances, the Goosander prefers clear to muddy water, which may probably be owing to the greater ease it finds in obtaining its food.

The size and plumage of the Goosander distinguish it very easily from most other water-birds, and its bulk is very conspicuous when on the wing.

Its motions on the ground are rather ungainly, owing to its waddling gait; it is nevertheless enabled to run very fast, if necessary.

Swimming and diving are its most natural occupations, and it performs them with ease and grace. When the Goosander dives in open water, it reappears generally from fifty to sixty yards from the spot of its disappearance; but in spots where there is only a small opening in the ice, it repeatedly comes up in the same place. The bird is said to remain frequently under water for two minutes, and has been seen to walk about at the bottom in pursuit of food.

The flight of this species is easy and rapid, cutting the air with its pointed beak and long neck.

The senses of sight, hearing, and scent, being very sharp in the Goosander, the bird observes all around it, and is consequently enabled to avoid danger, and it is only during the

breeding-season that it is not very fearful of the approach of men. This bird is sociable with its own species, but does not mix by choice with other water-fowl.

Its call-note sounds like the word *carrr*, *carrr!* and is generally uttered when the bird takes wing; the young pipe while they are in their down.

The food of the Goosander consists in fish and amphibious reptiles.

The nest of the Goosander is found among stones by the edge of the water, under shelter of bushes, and in hollow trees: the eggs are from ten to fourteen in number. As soon as the young are hatched, the parent bird leads them to the water; and, if they happen to be hatched in the hollow of a tree, she carries them one by one in her beak to a place of safety, and instructs them in swimming and obtaining their food, &c. Where the eggs can be taken from the bird as she deposits them, leaving only one in the nest, the number thus produced has, in some instances, amounted to thirty and more.

The measurements of the adult male are nearly twenty-seven inches in length; the wing, from the carpus to the tip, eleven inches.

The plumage of this bird is as follows: the entire head and upper part of the neck black, glossed with green, having a crest on the head, which is common to all Mergansers. The lower part of the neck, and all the under parts, pale salmon-yellow; the upper part of the back and scapulars black; the lower part of the back, upper tail-coverts and tail, decided grey; the wing-coverts all white; secondaries and tertials white, bordered with black; quill-feathers dusky black; some of the scapulars that cover the lesser wing-coverts are pale salmon-colour like the under parts. The beak is bright red; the upper mandible edged with black;

the nail horn-colour; the legs and feet pure orange, and the eyes carmine red.

The female is less in size: her beak, legs, and eyes, the same as in the male, but not so bright. The head and upper part of the neck are brown, darkest on the top of the head, and redder below; the chin white. The upper plumage is grey; the greater wing-coverts and speculum white; the lower row of the lesser wing-coverts tipped with black; the quills dusky-black; the lower part of the neck, the upper part of the breast, the sides and flanks grey, with the edges of the feathers paler; the breast and under parts tinged with pale buff; the under tail-coverts white.

The egg figured 268 is that of the Goosander.

PLATE CCLXIX.

RED-BREASTED MERGANSER.

MERGUS SERRATOR.

The Red-breasted Merganser is a regular winter visitant in Great Britain, most frequent in severe winters. In the northern parts of Scotland and some of the islands, several remain throughout the year.

The same countries that are enumerated as the resort of the foregoing species, form the habitation of the bird now before us: the numbers that visit us are, however, less. The places principally frequented by the Red-breasted Merganser are the sea-coasts, the mouths of rivers, bays, and inland lakes, from whence it departs to the sea-coast, when driven away in consequence of hard frosts that debar access to its provisions.

The spring plumage of the present species is a very handsome attire, and the elongated feathers about the head greatly increase the beauty of its appearance. This bird is rarely seen on dry land, since its chief occupation is on the surface, or beneath the liquid element. When on land, its walk is a perfect waddle, but the bird is able to walk fast when required. In swimming and diving it greatly resembles the Goosander, and it can remain also quite two minutes under water.

The flight of the Red-breasted Merganser is more buoyant and swift than that of the foregoing species, in consequence of its more slender form. This bird is by nature very shy, and avoids the presence of man as much as possible. Where space will allow it, the bird evades danger by swimming and diving, but otherwise it takes wing and mounts high in the air; as soon as danger is past, it frequently returns to the same spot, and thus enables a sportsman to hide himself and wait for its return.

Sociable among its own species, it is more generally seen in small or large flocks than singly: when a flock becomes scattered, the separated individuals are almost sure to take the first opportunity to reunite.

The call-note sounds most like the word *curr, currr!* and is chiefly and frequently uttered when the bird is taking wing, or in the act of flying.

The food on which the Red-breasted Merganser subsists is small fish, water-beetles, the larvæ of insects, worms, and sometimes frogs, that are obtained during the winter season from springy and boggy places. The small fishes which the present species pursues have little chance of escape, as the whole flock of birds present dive simultaneously, and pursue them towards the shore under water; the fish have no alternative but to run on the shallows, and there their pursuers make short work of them, and satisfy their greedy appetites.

The further north the country, the more frequent become the breeding-places of the Red-breasted Merganser. The spots chosen by this bird are the immediate vicinity of the sea, about the green, soft, flat mouths of rivers, bays and lakes, connected with rapid rivers, where rushes and reeds give it shelter.

On the large pieces of water that occur in Iceland, many

pairs produce their young in company with ducks of divers kinds. The nest itself is composed of dried flags, stalks, and grasses, which are carelessly put together. The different places chosen for its construction are infinitely numerous,—sometimes it is placed on the bare ground, in a hollow, or in a bush: among loose stones, or in a hole in a rock: in a recess of many feet deep, and at other times in the cavity of a hollow tree; or in the very top of a tall tree, and even in the old nest of a bird of prey; it is a difficult matter to name a place where to go and look for the nest and eggs of the Red-breasted Merganser, and equally so to enumerate any spot where it may not be found.

In the month of June the female deposits her eggs, which are ten or twelve in number, and in size, shape, and colour, as represented in our plate. If they are properly taken, the number produced exceeds two dozen. The young are treated by the parent bird like those of the Goosander; and, if required, she carefully carries one after another to the ground near the water.

The male bird does not trouble himself about the family, and only rejoins it in the winter: this accounts for the fact that the females and young are found in one place, and the old males in another.

The adult male measures twenty-two inches in length; the wing, from the carpus to the tip, ten inches.

The plumage of the adult male is as follows: the head and upper part of the neck are black, with green reflections; the next colour of the neck is white; its basal part and the upper part of the breast are ferruginous brown, spotted with dusky, in consequence of the dark centres of the feathers; the rest of the under parts are white; the flanks finely marked with grey pencilling; the upper part of the back and tertials are black; the scapulars, wing-coverts, and secondaries, white,

some tipped and edged with black; the shoulder of the wing black; some ornamented feathers on the sides, covering the carpus of the wing, are white, bordered with black; the lower part of the back and rump white, with grey waving pencillings: the quills are black; the tail greyish-black. The eyes are red; the beak orange-red, approaching to tile-red; the toothed edges bordered with dusky; the nail horn-colour; the legs and feet bright orange; the nails dusky.

The adult female has the head umber-brown, the chin paler brown: all the upper parts, the sides of the breast and belly are bistre, with paler edges to the feathers; the lesser wing-coverts, rump, and tail the same; the speculum and secondaries white; the lower part of the neck and upper part of the breast white, spotted with dusky, owing to the centres of the feathers being of that colour; the breast, belly, vent, and under tail-coverts white; the beak and legs are as in the male, but less brightly coloured; the eyes orange-red.

Early in November, 1842, we shot a young male of the present species below the weir, on the Thames near Chertsey in Surrey. Its entire length was nineteen inches and a half, the beak from the forehead two inches, from the gape two inches six lines; wing from carpus to tip eight inches; tarsus one inch nine lines. The tail had eighteen feathers, the shafts of which were black and stiff, like whalebone; the shafts of all the feathers of the upper plumage black, except those of the speculum, which are white. The beak pale red-lead, ridge of the upper mandible horn-colour; the inside of the mouth, teeth, and tongue, pale red-lead. The head dark clove-brown; the chin paler, nearly white; the upper part of the neck rust-colour; the lower part of the neck ash, tipped with white; back of the neck and tippet darker ash-colour, tipped with grey: the same continues to the tail-feathers, which are hoary black. All the lesser wing-

coverts hoary ash like the back. The primaries and their coverts dark sepia, outer webs black; secondaries and their coverts the same, except six in each row, broadly tipped with white, forming a speculum, which, when closed, has a dark wedge-shaped mark across it. The under surface of the wings ash and white mottled; flanks and under tail-coverts ash; under plumage from neck to vent dull white. Legs and toes dull orange; joints tinged with dusky; webs dusky grey.

This individual belonged to a flock of thirty-four that flew over: the birds flew with their heads drawn back between their shoulders, not extended as in wild ducks.

The egg figured 269 is that of the Red-breasted Merganser.

PLATE CCLXX.

HOODED MERGANSER.

MERGUS CUCULLATUS.

The Hooded Merganser is a rare occasional visitant in Great Britain. It is a native of North America, and not uncommon in Hudson's Bay and other far countries, from whence some few stragglers occasionally reach our shores: one single individual has only been recorded to have reached the continent of Europe, namely, France.

All particulars respecting its habits are only known from information received from American Ornithologists.

The breeding localities are reported to be upon the borders of lakes and rivers in the before-named northern latitudes. The nest is formed of grass and other herbage, lined with down; the eggs are eight or ten in number, and of a yellowish-white colour.

During the winter months this beautiful bird migrates southward, and extends over the lakes and rivers of the United States.

The entire length of this bird is eighteen inches; the beak one inch, eight lines; the tarsus one inch, three lines; the wing seven inches and a half.

The plumage of the adult male is as follows:—the head

is surmounted by a perfect hood, from which it has obtained its name; this hood is white, with a border of dusky black: the crest on the forehead is dusky; the head and neck are dusky black, with green and purple reflections; the back, tippet, scapulars, and two bars across the breast, are deep black; the under parts are all pure white; the flanks are ferruginous, and finely pencilled with black; the back, scapulars, tail, and quills, are brownish-black; the elongated tertials are metallic black, with white shafts; the lesser wing-coverts are black; the greater wing-coverts and secondaries are white, with a cross-bar of black, owing to the greater wing-coverts being tipped with that colour; the beak, legs, and feet, are transparent red-brown; the nail black; and the webs of the feet dusky; the eyes king's yellow.